#### State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	November 28, 2012
API #:	47-1301249 • D

Farm name: Yoak, Herbert T.		Operator Well No.: Yoak #1			
LOCATION: Elevation: 607			Quadrangle: Annam	oriah	
District: Sheridan			County: Calhoun		
Latitude:	Feet South of	Deg.	Min.	Sec.	
Longitude	Feet West of	Deg.	Min.	Sec.	

Company: Buckeye Oil Producing Co. Casing & Used in Left in well Cement fill Address: **Tubing** drilling up Cu. Ft. PO Box 129, Wooster, OH 44691 10" 391' 391' cmt to surface Agent: Henry W. Sinnett 8-1/4" 980' 980' -0-Inspector: Ed Gainer 7" 1095' 1095' 600' Date Permit Issued: 7/10/2012 4-1/2" 2554' 2554' 1513' Date Well Work Commenced: 7-15-12 Date Well Work Completed: 11-2-12 Verbal Plugging: N/A Date Permission granted on: Rotary X Cable Rig 2590' Total Vertical Depth (ft): Total Measured Depth (ft): 2590' 30' Fresh Water Depth (ft.): Salt Water Depth (ft.): 699' Is coal being mined in area (N/Y)? No Coal Depths (ft.): OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Gordon - Gantz

Pay zone depth (ft) 2176-2474

Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow 30

MCF/d Final open flow 2

Bbl/d

Time of open flow between initial and final tests 72

Hours

Static rock Pressure 770

psig (surface process) 2

To result of the producing formations please include additional data on separate sheet)

Pay zone depth (ft) 2176-2474

Bbl/d

Final open flow 30

MCF/d Final open flow 2

Bbl/d

Hours Second producing formation Berea Pay zone depth (ft) 2098-2113 Gas: Initial open flow -MCF/d Oil: Initial open flow -Bbl/d Final open flow 5 MCF/d Final open flow 5 Bbl/d Time of open flow between initial and final tests 72 Hours Static rock Pressure 190 psig (surface pressure) after 72 Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Mork J. LTle Signature

Were core samples taken? YesNo_X	Were cuttings caug	ght during drilling? YesNo_X
Were $\frac{Y}{Y/N}$ Electrical, $\frac{N}{Y/N}$ Mechanical, $\frac{N}{Y/N}$ or	Geophysical logs recorded on this	s well?
NOTE: IN THE AREA BELOW PUT THI FRACTURING OR STIMULATING, PHYSICA DETAILED GEOLOGICAL RECORD OF THE ENCOUNTERED BY THE WELLBORE FROM Perforated Intervals, Fracturing, or Stimulating:	L CHANGE, ETC. 2). THE WITOPS AND BOTTOMS OF AL	ELL LOG WHICH IS A SYSTEMATIC LL FORMATIONS, INCLUDING COAL
	Berea	Gantz-Gordon
Perforation Interval:	2098-2113	2176-2474
# of Perforations:	17	26
Type of Frac:	Gel-Water	Slick water
Sks. of Sand:	200 sks	290 sks
Fracked Berea w/ 37,000 gal. Gelled water	& 200 sks of 20/40 sand 2	5 BPM @ 1291 psi.
Fracked Gordon-Gantz 72,000 slick water	290 sks of 20/40 sand 33	BPM @ 1211 psi. 5 min. S.I. 692
Formations Encountered: Surface:	Top Depth /	Bottom Depth
Big Injun	1673	1716
Berea	2098	2112
Gantz	2172	2250
Gordon	2452	2476
7/85) 8-8-		

### State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	November 28, 2012
API#:	47-1303023 W

Farm name: Fisher, James & Sheila			Operator Well No.: Fisher #7		
LOCATION: Elevation: 9	40	(	Quadrangle: Annan	oriah	
District: Sheridar	1		County: Calhoun		
Latitude:	Feet South of	Deg.	Min.	Sec.	
Longitude	Feet West of	Deg.	Min.	Sec.	

Company: Buckeye Oil Producing Co.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
PO Box 129, Wooster, OH 44691	6-5/8"	1821		cont to surface
Agent: Henry W. Sinnett	4-1/2"	2276	2276	850 fill up
Inspector: Ed Gainer				
Date Permit Issued: 7/10/2012				
Date Well Work Commenced: 8/2/12				
Date Well Work Completed: 10/1/12				
Verbal Plugging: No				
Date Permission granted on:				<u> </u>
Rotary Cable X Rig				
Total Vertical Depth (ft): 2380				
Total Measured Depth (ft): 2380				
Fresh Water Depth (ft.): 60				
Salt Water Depth (ft.): 945				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): n/a				
Void(s) encountered (N/Y) Depth(s) n/a				

Producing formation Berea	Pay zone d	lepth (ft) 2352 · 236	<u>8</u>
Gas: Initial open flow	MCF/d Oil: Initial open flow	Bbl/d	
Final open flow 5	_MCF/d Final open flow 2	Bbl/d	
Time of open flow between	en initial and final tests 72	Hours	
Static rock Pressure 17	psig (surface pressure) after	2 Hours	
Second producing formation	ı Pay zone dep	oth (ft)	Office of Children Con achor
Gas: Initial open flow	MCF/d Oil: Initial open flow	Bbl/d	10 miles
Final open flow	MCF/d Final open flow	Bbl/d	all the same
Time of open flow between	en initial and final tests	Hours	Office of 22 23.3
Static rock Pressure	psig (surface pressure) after	Hours	K, WOL

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Male ). Itali

1 24 13 Date

13-03023W

Were core samples taken? Yes_	NoX	Were cuttings caught of	during drilling? Yes	NoX
Were Electrical, Mechanical or Ge	ophysical logs recorded	on this well? If yes, please list_	NONE	
NOTE: IN THE AREA BEIFRACTURING OR STIMULA DETAILED GEOLOGICAL I COAL ENCOUNTERED BY TO Perforated Intervals, Fracturing, or	TING, PHYSICAL CH RECORD OF THE TO HE WELLBORE FRO	IANGE, ETC. 2). THE WELI OPS AND BOTTOMS OF A	L LOG WHICH IS A S ALL FORMATIONS,	YSTEMATIC
	Berea			
Perforation Interval:	Open hole			
# of Perforations:				
Type of Frac:	Gel Water			
Sks. of Sand:	250 sks			
Ran new 4-1/2° casing w/Ballon Packer set @ 2270	5'. Cemented w/65 sks of cement. C	pen hole - open from 2276-2380' fracked w/3	5,249 gal. water 23 BPM @ 1136 pa	si and 250 sks of sand.
Plug Back Details Including Plug	Type and Depth(s):			
Formations Encountered: Surface:	To	op Depth /	Bottom	<u>Depth</u>
Big Lime	1	870	1918	
Big Injun	1	918	1994	
Berea	2	352	2374	

# State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	November 30, 2012
API#:	47-1304734

IION: Elevation: 940'	Quadrangle: Grantsville  County: Calhoun			
District: Center				
		. Se		
Longitude Feet West of Deg.				
Company: Buckeye Oil Producing Co.				
Address: PO Box 129, Wooster, OH 44691	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
	7"	252'	252'	cmt to surface
Agent: Henry W. Sinnett	4-1/2"	2792'	2792'	814 cu ft 1654' fill uj
Inspector: Ed Gainer				
Date Permit Issued: 8/2/12				
Date Well Work Commenced: 8/5/12				
Date Well Work Completed: 12/14/12				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 2812				
Total Measured Depth (ft): 2820				
Fresh Water Depth (ft.): 60				
Salt Water Depth (ft.): 945				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.):				
Void(s) encountered (N/Y) Depth(s)	<u> </u>			
EN FLOW DATA (If more than two producing formatic Producing formation Gordon - Gantz Pay Gas: Initial open flow MCF/d Oil: Initial open flow Time of open flow between initial and final tests 72 Static rock Pressure 690 psig (surface pressure) at	zone depth (ft) 2 low 1 Bl w 2 Bb Hours	2447 - 2740 bl/d l/d	data on separate	sheet)
Second producing formation Berea Pay zo  Gas: Initial open flow 5 MCF/d Oil: Initial open flow  Final open flow 10 MCF/d Final open flow  Time of open flow between initial and final tests 72  Static rock Pressure 429 psig (surface pressure) as	w 12 Bb Hours	bl/d l/d	-rofe	

Were core samples taken? YesN	No_X Were cuttings of	caught during drilling? YesNo_X
Were Electrical, Mechanical or Geophysic	cal logs recorded on this well? If yes, plea	ase list Gamma Ray, Neutron Compensated Density
FRACTURING OR STIMULATING,	PHYSICAL CHANGE, ETC. 2). THE RD OF THE TOPS AND BOTTOMS	TAILS OF PERFORATED INTERVALS, WELL LOG WHICH IS A SYSTEMATIC S OF ALL FORMATIONS, INCLUDING TAL DEPTH.
Perforated Intervals, Fracturing, or Stimul	lating:	
Perf: 2363 - 2384, 17 shots, fra	cked with 30,500 gal water 22,00	0 lbs. 20/40 sand. 19BPM @ 950 psi.
2447 - 2740, 30 shots, fra	cked with 72,700 gal water 30,000	lbs. 20/40 sand. 32 BPM @ 1025 psi.
· · · · · · · · · · · · · · · · · · ·		
Plug Back Details Including Plug Type ar	nd Depth(s):	
Formations Encountered: Surface:	Top Depth /	Bottom Depth
Big Injun	1940	2006
Berea	2363	2384
Gantz	2448	2513
30'	2588	2634
Gordon	2718	2740
· · · · · · · · · · · · · · · · · ·		

DATE: 10/19-2010 API#: 47-017-05869

### State of West Virginia Department of Environmental Protection Office of Oil and Gas

Well Operator	r's Report of W	ell Work		
Farm name: Lorelei Phillips et al	Oper	rator Well No.:	Phillips #2	
LOCATION: Elevation: 1,088'	Qua	drangle: Smith	ourg 7.5'	
District: West Union	Coun	ty: Doddridge		
Latitude: 1,335' Feet South of	39	•	Min. 00	) Sec.
Longitude 9,780' Feet West of	80	Deg. 42	Min. 30	Sec.
Commonwe				
Company:	Contra 8	1	1	l
Aipha Gas Corporation	Casing & Tubing	Used in drilling	Left in well	Cement fill
Address:	Tubing	urming	<del> </del>	up Cu. Ft.
1503 Sycamore Lick Rd. Jane Lew, WV 26378	13 3/8	<del>-</del>	<del>                                     </del>	
Agent: Jonelle M. Swiger	13 5/0	<del>                                     </del>	<del> </del>	
Inspector: David Scranage	9 5/8	120	120	50 sks
Date Permit Issued: 09/14/2009	1	+ 120	120	JU 3K3
Date Well Work Commenced: 09/28/2010	6 5/8	1433	1433	180 sks
Date Well Work Completed: 10/03/2010	1 3 3 7 3	1	1	100 383
Verbal Plugging:	4 1/2	2941	2875	80 sks
Date Permission granted on:				00 0
Rotary X Cable Rig				
Total Depth (feet): 2941				
Fresh Water Depth (ft.): N/A			R	ECEIVED
			Office	of Oil & Gas
Salt Water Depth (ft.): N/A				or or a Gas
			M	10 1: 1 0040
Is coal being mined in area (N/Y)? N			141)	R 1 1 2013
Coal Depths (ft.): N/A			140.	
		1	_ WV D	epartment of
ODEN ELOW DATA			Environm	ental Protection
OPEN FLOW DATA				OTTAL TOUGULON
Producing formation Gordan Pay 20		2772 2704 2		
		2773-2794 ft.	D1 1/1	
Final open flow 200 MCF/d		pen flow	<del></del>	
		en flow	Bbl/d	
Time of open flow between initial and f		Hou		
Static rock Pressure 65# psig (surface p	ressure) after	48 Hours		
Cocondducin Council T				
Second producing formation Injun		pth (ft) 2064-2		
Gas: Initial open flow MCF/d Oil:	Initial of	pen flow	Bbl/d	
Final open flow MCF/d	Final op	en flow		
Time of open flow between initial and f	inal tests	Hou		
Static rock Pressure psig (surface	e pressure) af	terHo	urs	
* = commingled zones				
NOTE: ON BACK OF THIS FORM PUT THE F	OLLOWING:	1). DETAILS	OF PERFORATI	ED
INTERVALS, FRACTURING OR STIMULATIN	GEOLOGICA	L CHANGE, E	TC. 2). THE WE	ELL
LOG WHICH IS A SYSTEMATIC DETAILED	GEOLOGICA	L KECOKD OF	ALL FORMAT	IUNS,
Signed:				

#### Phillips #2 47-017-05869

Stage #1		perfs		sand	avg rate		isip
Gordan		2773-27 18 holes		200 sks	28 bpm		1245#
Stage #2							
Injun		2064-21 18 hole		300 sks	28 bpm		1135#
Drillers Log					Electric 1	Log Top	s
Sh	0	25			Big Lime	e 1996 ft	
Sd/Sh	25	695			Big Injur		
Sd	695	740			Gordan	2768 ft	
Sd/Sh	740	1996					•
B. Lime	1996	2064					
B. Injun	2064	2176					
Sd/Sh	2176	2768					
Gordan	2768	2800					
Sd/Sh	2800	2941					
Td	2941 ft.		Gas ck (	@ TD = odor			

RECEIVED
Office of Oil & Gas

MAR 1 1 2013

WV Department of Environmental Protection

### State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

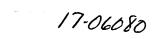
DATE:	2/19/2013
API#:	47-017-06080

IION: Elevation: 881'	Quadrangle: S	milliourg 7.5'		
District: Grant	County: Doddi	idge		<u></u>
	g. 17 Min.			
Longitude 5.654 Feet West of 80 De	eg. 40 Min.	. <u>00</u> Se	c.	
Company: Antero Resources Appalachian Corp				
Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft. Class
Agent: CT Corporation System	13-3/8" 48#	380'	380'	528 Cu. Ft. Class
Inspector: Sam Ward	9-5/8" 36#	2497'	2497'	1017 Cu. Ft. Class
Date Permit Issued: 4/26/2012	5-1/2" 20#	13641'	13641'	3350 Cu. Ft. Class
Date Well Work Commenced: 6/6/2012				
Date Well Work Completed: 12/8/2012	2-3/8" 4.7#	6649'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary Cable Rig				
Total Vertical Depth (ft): 6,633' TVD				
Total Measured Depth (ft): 13,664' MD				
Fresh Water Depth (ft.): 105'				
Salt Water Depth (ft.): 1216'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 154', 236', 273'				
Void(s) encountered (N/Y) Depth(s) N, N/A				
EN FLOW DATA (If more than two producing forms	y zone depth (ft) <u>6</u> n flow N/A Bl low N/A Bb //A Hours	5,522' TVD (To bl/d l/d	lata on separate : op)	sheet)
Static rock Pressure	110u1		. *	
	zone depth (ft)		• •	
Gas: Initial open flowMCF/d Oil: Initial oper	n flowBl	ol/d		3.1 2013

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

2 19/13 Date



Were core samples taken? YesNo_X Were cuttings caught during drilling? Yes_X No_				
		: Yes- CBL		
Were Electrical, Mechanical or Geophysic This is a subsequent well. Antero only runs wheline logs on the first	cal logs recorded on this well? If yes, please twell on a multi-well pad (Neety Unit 1H APH#47-017-06086). Please refe	rence the wireline logs submitted with Form WR-35 for Neety Unit 1H.		
FRACTURING OR STIMULATING, DETAILED GEOLOGICAL RECOR	PUT THE FOLLOWING: 1). DETAIL PHYSICAL CHANGE, ETC. 2). THE WARD OF THE TOPS AND BOTTOMS CELLBORE FROM SURFACE TO TOTAL	ELL LOG WHICH IS A SYSTEMATIC OF ALL FORMATIONS, INCLUDING		
Perforated Intervals, Fracturing, or Stimul	ating:			
Perforations: 6,927' - 13,575' MD (	1392 holes)			
Frac'd w/ 10,500 gals 15% HCL A	cid, 136,738 bbls Slick Water carryir	ng 731,159# 100 mesh,		
2,766,121# 40/70 and 1,653,769#	20/40 sand.			
Plug Back Details Including Plug Type an	d Depth(s): N/A			
Formations Encountered: Surface:	Top Depth /	Bottom Depth		
Big Lime est.	1,571'	2,321'		
Fifty Foot Sandstone est.	2,322'	4,174'		
Bradford est.	4,175'	4,640'		
Benson est.	4,641'	4,897'		
Alexander est.	4,898'	5,114'		
Elk est.	5,115'	5,673'		
Rhinestreet	5,674'	6,178'		
Sycamore	6,179'	6,268'		
Middlesex	6,269'	6,325'		
West River	6,326'	6,367'		
Genundewa	6,368'	6,411'		
Burket	6,412'	6,442'		
	6,443'	6,504'		
Tully	6,505'	6,521'		
Hamilton	•	6,633' TVD		
Marcellus	6,522'	0,055 140		

### State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	2/19/2013	
API#:	47-017-06084	

Farm name: Powell, Dennis H. and Mellie				tor Well No.: L	eatherman Unit 1H	
LOCATION: Elevation: 881'			Quadra	angle: Smithbur	g 7.5'	
District: Grant			Count	y: Doddridge		
Latitude: 6,894	Feet South of 39	Deg.		Min. 30	Sec.	
Longitude 5,659	Feet West of 80	Deg.	40	Min. 00	Sec.	

Antero Resources Appalachian Corp Company: Left in well Cement fill Casing & Used in 1625 17th Street Address: **Tubing** drilling up Cu. Ft. Denver, CO 80202 20" 94# 40' 40' 38 Cu. Ft. Class A **CT Corporation System** 13-3/8" 48# 353' 353' 490 Cu. Ft. Class A Agent: 1514 Cu. Ft. Class A Inspector: Sam Ward 9-5/8" 36# 2601' 2601' 5-1/2" 20# 13917' 13917' 3395 Cu. Ft. Class H Date Permit Issued: 5/22/2012 7/6/2012 Date Well Work Commenced: 12/13/2012 2-3/8" 4.7# 6677' Date Well Work Completed: N/A Verbal Plugging: N/A Date Permission granted on: Rotary 🗸 Cable Rig Total Vertical Depth (ft): 6,630' TVD Total Measured Depth (ft): 13,917' MD Fresh Water Depth (ft.): est. 103' None available Salt Water Depth (ft.): Is coal being mined in area (N/Y)? N Coal Depths (ft.): 154', 236', 273' Void(s) encountered (N/Y) Depth(s) N, N/A

Producing formation Marcel	than two producing formations pleasus Pay zone de	epth (ft)6.528' TVD (Top)	
Gas: Initial open flow	MCF/d Oil: Initial open flow N/A	Bbl/d	
Final open flow 9,118	MCF/d Final open flow N/A	Bbl/d	
Time of open flow between	een initial and final tests N/A	Hours	
Static rock Pressure 3550	psig (surface pressure) after	Hours	•
Second producing formation	n Pay zone dept	h (ft)	FEB 3.1 2013
Gas: Initial open flow	MCF/d Oil: Initial open flow_	Bbl/d	Y
Etual anan Alam	MCF/d Final open flow	Bbl/d	
Final open flow			
• —	een initial and final tests		•

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature



Were core samples taken? YesN	oX Were cuttings caug	ht during drilling? Yes X No				
Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Yes-CBL  This is a subsequent well. Antero only runs whetine logs on the first well on a multi-well pad (Neely Unit 1H API#47-017-06088). Please reference the whretine logs submitted with Form WR-35 for Neely Unit 1H.						
FRACTURING OR STIMULATING, DETAILED GEOLOGICAL RECOR	PUT THE FOLLOWING: 1). DETAIL PHYSICAL CHANGE, ETC. 2). THE WE D OF THE TOPS AND BOTTOMS OF THE TOMS O	LL LOG WHICH IS A SYSTEMATIC F ALL FORMATIONS, INCLUDING				
Perforated Intervals, Fracturing, or Stimula	ating:					
Perforations: 6,666' - 13,851' MD (	1452 holes)					
Frac'd w/ 11,000 gals 15% HCL Ad	cid, 150,915bbls Slick Water carrying	791,499# 100 mesh,				
2,947,320# 40/70 and 1,867,227#	20/40 sand.					
Plug Back Details Including Plug Type an	d Depth(s): N/A					
Formations Encountered:	Top Depth /	Bottom Depth				
Surface:						
Big Lime est.	1,571'	2,321'				
Fifty Foot Sandstone est.	2,322'	4,174'				
Bradford est.	4,175'	4,640'				
Benson est.	4,641'	4,897'				
Alexander est.	4,898'	5,114'				
Elk est.	5,115'	5,664'				
Rhinestreet est.	5,665'	6,045'				
Sycamore est.	6,046'	6,114'				
Sonyea est.	6,115'	6,257'				
Middlesex est.	6,258'	6,328'				
West River est.	6,329'	6,370'				
Genundewa est.	6,371'	6,416'				
Burket est.	6,417'	6,446'				
Tully est.	6,447'	6,510'				
Hamilton est.	6,511'	6,527'				
	6,528'	6,630' TVD				
Marcellus est.	0,320	3,030 140				

### State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/18/2013	V
API#:	47-017-06085	

TION: Elevation: 881'	_ Quadrangle: _S	Smithburg 7.5'		
District: Grant	County: Doddi	idae		
Latitude: 6,885 Feet South of 39 Deg.			C	
	. 40 Min.	00 See	<b>C.</b>	
Company: Antero Resources Appalachian Corp				_
Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft. Class
Agent: CT Corporation System	13-3/8" 48#	380'	380'	528 Cu. Ft. Class A
Inspector: Sam Ward	9-5/8" 36#	2707'	2707'	1514 Cu. Ft. Class A
Date Permit Issued: 5/22/2012	5-1/2" 20#	14446'	14446'	3395 Cu. Ft. Class I
Date Well Work Commenced: 7/29/2012				
Date Well Work Completed: 12/18/2012	2-3/8" 4.7#	6630'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary Cable Rig				
Total Vertical Depth (ft): 6,643' TVD				
Total Measured Depth (ft): 14,446' MD				
Fresh Water Depth (ft.): 103'				
Salt Water Depth (ft.): None available				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 154', 236', 273'				
Void(s) encountered (N/Y) Depth(s) N, N/A				
Producing formation Marcellus Pay Gas: Initial open flow MCF/d Oil: Initial open flow 5.821 MCF/d Final open flow Time of open flow between initial and final tests N/A Static rock Pressure 3550 psig (surface pressure) a  Second producing formation Pay 26 Gas: Initial open flow MCF/d Oil: Initial open flow	zone depth (ft)6 flow N/A Bb W N/A Bb Hours fler Hour	<u>,545' TV</u> D (Tc ol/d l/d	(pp)	sheet)

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

2|19|13 Date

Were core samples taken? Yes No Were cuttings caught during drilling? Yes						
Were Electrical Mechanical or Geonbusic	Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Yes- CBL					
This is a subsequent well. Antero only runs wireline logs on the first	t well on a multi-well pad (Neely Unit 1H API#47-017-06086). Please refer	rence the wireline logs submitted with Form WR-35 for Neely Unit 1H.				
FRACTURING OR STIMULATING, DETAILED GEOLOGICAL RECOR	PUT THE FOLLOWING: 1). DETAIL PHYSICAL CHANGE, ETC. 2). THE WI RD OF THE TOPS AND BOTTOMS OF ELLBORE FROM SURFACE TO TOTAL	ELL LOG WHICH IS A SYSTEMATIC OF ALL FORMATIONS, INCLUDING				
Perforated Intervals, Fracturing, or Stimul	ating:					
Perforations: 7,135' - 14,377' MD (						
Frac'd w/ 11,000 gals 15% HCL A	cid, 150,553 bbls Slick Water carryin	ng 843,928# 100 mesh,				
3,000,406# 40/70 and 1,861,910#	20/40 sand.					
Plug Back Details Including Plug Type an	d Depth(s): N/A					
Formations Encountered:	Top Depth /	Bottom Depth				
Surface:						
Big Lime est.	1,571'	2,321'				
Fifty Foot Sandstone est.	2,322'	4,174'				
Bradford est.	4,175'	4,640'				
Benson est.	4,641'	4,897'				
Alexander est.	4,898'	5,114'				
Elk est.	5 <b>,115</b> '	5,664'				
Rhinestreet est.	5,665'	6,045'				
Sycamore est.	6.046'	6,114'				
Sonyea est.	6,115'	6,257'				
Middlesex est.	6,258'	6,315'				
West River est.	6,316'	6,359'				
Genundewa est.	6,360'	6,431'				
Burket	6,432'	6,460'				
Tully	6,461'	6,525'				
Hamilton	6,526'	6,544'				
Marcellus	6,545'	6,643' TVD				
iviai Cellus	0,545	0,043 140				

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	2/20/2013	
API#:	47-017-06086	

Farm name: Powell, Dennis H. and Mellie	_ Operator Well	No.: Neely Uni	t 1H		
LOCATION: Elevation: 881'	Quadrangle: Smithburg 7.5'				
District: Grant	County: Dodd	ridge			
Latitude: 6,911 Feet South of 39 Deg	. <u>17</u> Min	<u>30</u> Se	c.		
Longitude 5,648 Feet West of 80 Deg	g. <u>40</u> Min	. <u>00</u> Se	c.		
Company: Antero Resources Appalachian Corp					
Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.	
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft. Class A	
Agent: CT Corporation System	13-3/8" 48#	394'	394'	547 Cu. Ft. Class A	
Inspector: Sam Ward	9-5/8" 36#	2561'	2561'	1043 Cu. Ft. Class A	
Date Permit Issued: 6/8/2012	5-1/2" 20#	14,082'	14,082'	3452 Cu. Ft. Class H	
Date Well Work Commenced: 6/22/2012					
Date Well Work Completed: 12/2/2012	2-3/8" 4.7#	6960'			
Verbal Plugging: N/A					
Date Permission granted on: N/A					
Rotary Cable Rig					
Total Vertical Depth (ft): 6,617' TVD					
Total Measured Depth (ft): 14,082' MD					
Fresh Water Depth (ft.): est. 105'					
Salt Water Depth (ft.): None available					
Is coal being mined in area (N/Y)? N					
Coal Depths (ft.): 154', 236', 273'					
Void(s) encountered (N/Y) Depth(s) N, N/A					
OPEN FLOW DATA (If more than two producing format				sheet)	
Producing formation Marcellus Pay			)P)		
Gas: Initial open flow MCF/d Oil: Initial open Final open flow 4,797 MCF/d Final open flo		ol/d			
Time of open flow between initial and final tests N/A					
Static rock Pressure <sup>3550</sup> psig (surface pressure) a					
Static rock Plessurepsig (surface pressure) a	itteiriou	15			
• • •	one depth (ft)				
Gas: Initial open flowMCF/d Oil: Initial open		ol/d			
Final open flowMCF/d Final open flo			·	~ C+3	
Time of open flow between initial and final tests				3 3 1 29 13	
Static rock Pressurepsig (surface pressure) a	afterHou	rs	ŁĒ,	う 『	

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

7<del>1th</del> Nelle

<u> 120||3</u>

Were core samples taken? YesN	ight during drilling? Yes No	
Were Electrical, Mechanical or Geophysic Photo Density/Compensated Neutron/ Gamma Ray.	cal logs recorded on this well? If yes, please	e list Yes- CBL, Dual Laterolog,
FRACTURING OR STIMULATING, DETAILED GEOLOGICAL RECOR	PHYSICAL CHANGE, ETC. 2). THE W	ILS OF PERFORATED INTERVALS, /ELL LOG WHICH IS A SYSTEMATIC OF ALL FORMATIONS, INCLUDING L DEPTH.
Perforated Intervals, Fracturing, or Stimul	lating:	
Perforations: 6,981' - 14,016' MD		
Frac'd w/ 11,000 gals 15% HCL A	cid, 147,086 bbls Slick Water carryi	ng 763,222# 100 mesh,
2,925,097# 40/70 and 1,821,671#	20/40 sand.	
Plug Back Details Including Plug Type ar	nd Depth(s): N/A	
Formations Encountered: Surface:	Top Depth /	Bottom Depth
Big Lime	1,571'	2,321'
ifty Foot Sandstone	2,322'	4,174'
Bradford	4,175'	4,640'
Benson	4,641'	4,897'
Mexander	4,898'	5,114'
ik	5,115'	5,664'
Rhinestreet	5,665'	6,045'
Sycamore	6,046'	6,114'
Sonyea	6,115'	6,257'
⁄iddlesex	6,258'	6,315'
Vest River	6,316'	6,359'
Genundewa	6,360'	6,403'
Burket	6,404'	6,435'
Tully	6,436'	6,499'
lamilton	6,500'	6,514'
Marcellus	6,515'	6,617' TVD

DATE:	12/1/11
API:	47-033-05380

### State of West Virginia Division of Environmental Protection Section of Oil and Gas

### Well Operator's Report of Well Work

Farm Name:	Bradley Lewi	is	Operator V	Vell No	Shuman #3 D	O918
LOCATION:	Elevation:	1101.94'	Quadrangle:		Berlin	
Dist	trict: E	k	County:		Harrison	
Latitu	ude: 8030'		. 39 Dec	07 Min	30 Se	_
	ude: 10350'	-				
Longitt	ide. <u>10330</u>	reel vv. Oi		<u>. 15 </u> Will.		C.
Company: Devon	ian Gas Produc	tion,Inc.	<del></del>			
			Casing &	Used in	H 1	Cement fill
Address: PO Bo	x 907		Tubing	Drilling	Left in Well	
Jane L	ew, WV 26378		9 5/8	30	30'	
	,		7"	970'	970'	to surface
Agent:	.lol.	nn Haskins		J 370	4885'	200 sks
Inspector:		im Bennett	7 1/2	<del> </del>	1 7000	200 383
Date Permit Issue		02/03/10	<del></del>	1	1	
Date Well Work C		02/20/10	<del></del> -	1	1 -	
Date Well Work C		03/11/10		1		
Verbal Plugging:	ompieteu.	03/11/10		1	╢	
Date Permission (	Granted on:			1	- <del> </del>	·
Rotary X Cable				<u> </u>	<b>∦</b>	
	Rig	4050		ļ		
Total Depth (ft):	ub (61).	4950'				
Fresh Water Dept	in (π):	100'		<u> </u>		
Salt Water Depth	(ft):	NA NA				
ls coal being mine Coal Depths		/N)?	N			
OPEN FLOW DA	TA					
	cing formations			Pay zone dep	oth (ft)	
				,		
	•	Bradfo	ord			3548'
	•	Bens				4327'
	•	Elk				4729'
	•		·			
Gas: I	nitial open flow	190	Mcf/d. Oil: Ini	tial open flow	N/A Bb	I/d
	Final open flow			nal open flow	N/A Bb	
	o open flow bety			•	Hours	
	rock Pressure		psig (surface		_	urs.
NOTE: On back of stimulating, physic record of all formations.	cal change, etc.	2) The well	l log which is	a systematic d	etailed geolog	_

#### **HYDRAULIC FRACTURING DETAILS**

STAGE	FORMATION	PERFORATIONS	SAND
		# of shots	20/40
1st Stage	Elk	12	35,000
2nd Stage	Benson	14	40,000
3rd Stage	Bradford	9	25,000

#### **DRILLERS LOG**

DRILLERS LOG						
FORMATION	FROM	ТО				
Fill	0	5				
sand & shale	5	847				
sand & shale	847	1,445				
sand & shale	1,445	1,485				
Big Lime	1,485	1,597				
sand & shale	1,597	2,330				
Fifth Sand	2,330	2,350				
sand & shale	2,350	2,430				
Bayard	2,430	2,436				
sand & shale	2,436	3,545				
Bradford	3,545	3,594				
sand & shale	3,594	4,306				
Benson	4,306	4,332				
sand & shale	4,332	4,729				
Elk	4,729	TD				

#### **ELECTRIC LOG**

FORMATION	DEPTH
Big Lime	1,485
Fifth Sand	2,330
Bayard	2,430
Bradford	3,545
Benson	4,306
Elk	4,740

# State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE: 10/8/2011 API#: 47-502250 F

Farm name: Berwin Winifrede	Operator Well No.: BW-49(F)
LOCATION: Elevation: 1073 FT	Quadrangle: Belle 7.5'
District: Sherman  Latitude: 1,220 Feet South of 38  Longitude 5,870 Feet West of 81	County: Boone    Deg. 07   Min.59   Sec.     Deg. 36   Min.32   Sec.
Company: Northstar En	~

any: Northstor Energy	1 Cor	0		
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
900 Lee St. E Ste. 940 Charleston, WV	Conduct.	35'	35'	
Agent: James Abcouwer	9 5/8"	580'	580'	578
Inspector: Barry Stollings	7"	1698'	1698'	343
Date Permit Issued: 03/31/2008	4 1/2"		5174'	408
Date Well Work Commenced: 7/24/2009				
Date Well Work Completed: 7/24/2009				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 5186'				
Total Measured Depth (ft): 5174'				
Fresh Water Depth (ft.): 245'				
Salt Water Depth (ft.): 1257'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 658'-678'				
Void(s) encountered (N/Y) Depth(s)N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate she Producing formation Huron Pay zone depth (ft) 4346	heet)
Gas: Initial open flow 420 MCF/d Oil: Initial open flow Bbl/d	
Final open flow 280 MCF/d Final open flow Bbl/d	
Time of open flow between initial and final tests Hours	HOFINET
Static rock Pressure psig (surface pressure) after 48 Hours	War - 18
Second producing formation Lime Pay zone depth (ft) 2046	2 1 1 2013
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d	1 2013
Final open flowBbl/d	7 A. M
Time of open flow between initial and final testsHours	1994
Static rock Pressurepsig (surface pressure) afterHours	"Medical

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

10-10-11

5-02250F

5186'

					3-0223
Were core samples taken? Ye	sNo_X	W	ere cuttings caught duri	ng drilling?	YesNoX
Were Electrical, Y/N	Mechanical, or C	eophysical log	s recorded on this well?		
Dufferent II. d. W. a. d.					
Perforated Intervals, Fracturing	or Stimulating:				
2 fracture zones performe	ed on the well Bu	J Services	Tested lines to 4	200 psi	
1st-Lower Huron Perf Int	ervals 4783'-5100	) Nitrogen	Fracture, 22 holes	total Tota	I N2 =10061 bbls.
200 gal. 7.5% HCL in Ho	e. Broke and distr	placed treat	ed water with 75 M	iscf N2 d	ropped 13 pref ba
2nd- Middle Huron Perf II	 ntervals 3728'-435	52' N2 Frac	ture.18 holes total.	Total Niti	rogen = 15082 bbl
100 gal. 7.5% HCL in Ho		· · · · · · · · · · · · · · · · · · ·			····
Formations Encountered: Surface:		Top Depth	/		Sottom Depth
Sub Base		0'			10'
Fill		10'			21'
Sand and Shale		21'			935'
Upper Maxon		1610'			1636'
Lower Maxon		1685'			1705'
Little Lime		1720'			1785'
Big Lime		1808'			1995'
Big Injun		2006'			2039'
Middle Weir		2059'			2085'
Lower Weir		2203'			2240'
Berea		2452'			2462'
Middle Huron		3777'			3954'
Lower Huron		4044'			4284'

5132'

Marcellus Shale

#### State of West Virginia Department of Environmental Protection Office of Oil and Gas

DATE: 9/28/2010 API#:

Well Operator's Report of Well Work

Farm n	<sub>ame:</sub> Berwin Winifrede	Operator Wel	<sub>ll No.:</sub> BW-53		
LOCA'	TION: Elevation: 1010 FT	Quadrangle:	Marine and the second		<del></del>
	Peet West of Ol Deg.	O7 Boo	ne 30 Sec		
Compa	y: North Star Energy	080	7		
	Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill
	900 Lee St. E Ste. 940 Charleston, WV	Conduct.	32'	30'	up Cu. Ft.
	Agent: James Abcouwer	9 5/8"	515'	506'	376
	Inspector: Barry Stollings	7"	1938'	1928'	392
	Date Permit Issued: 02/05/2009	4 1/2"	5250'	5236'	486
	Date Well Work Commenced: 1/1/2011				
	Date Well Work Completed: 1/12/2011				
1	Verbal Plugging:				
	Date Permission granted on:				
	Rotary Cable Rig				
	Total Vertical Depth (ft): 5256				
	Total Measured Depth (ft): 5250				
	Fresh Water Depth (ft.): , 382,439				
	Salt Water Depth (ft.): 1486, 1745				
	Is coal being mined in area (N/Y)?				
	Coal Depths (ft.): 368, 905,				
	Void(s) encountered (N/Y) Depth(s) N				
G	N FLOW DATA (If more than two producing formation roducing formation LH, Rhinestreet, Marc. Pay zo as: Initial open flow 270 MCF/d Oil: Initial open flow Final open flow MCF/d Final open flow Time of open flow between initial and final tests 48 atic rock Pressure 460 psig (surface pressure) after	Bbl. Hours	l/d /d	ta on separate sh	eet)
					FMET ULano — r
	econd producing formation Pay zone as: Initial open flow MCF/d Oil: Initial open flow Final open flow MCF/d Final open flow	wBb			L 1 2013
~	Time of open flow between initial and final tests	Hours			to V 1V
St	atic rock Pressurepsig (surface pressure) after	erHours		r. Man	O Strawn
	d			any it	To Ulavien

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

,		5.023
Were core samples taken? Yes	No Were cutting	s caught during drilling? YesNo
Were Electrical, Y Mech	anical, or Geophysical logs recorded	on this well?
DETAILED GEOLOGICAL REC	OW PUT THE FOLLOWING: 1). DI NG, PHYSICAL CHANGE, ETC. 2). TH CORD OF THE TOPS AND BOTTOMS O LBORE FROM SURFACE TO TOTAL D	ETAILS OF PERFORATED INTERVALS IE WELL LOG WHICH IS A SYSTEMATIO OF ALL FORMATIONS, INCLUDING COAL DEPTH.
Perforated Intervals, Fracturing, or St	imulating:	
2 fracture zones performed or		lines to 4200 psi
1st- Marcellus Perf Intervals	4750'-4850' Nitrogen Fracture, 1	6 holes total Total Nitrogen = 20,043
125 gal. 15% HCL in Hole. Br	oke and dislplaced treated water	with 75 Mscf N2 dropped 10 pref bal
2nd- Rhinestreet Perf Interva	ls 4600'-4700' N2 Fracture 14 h	oles total, Total Nitrogen = 14,044
125 gal. 15% HCL in Hole. Br	oke and distrilaced treated water	with 75 Mscf N2 dropped 8 pref balls
Formations Encountered:	The Doub	
Surface:	Top Depth	Bottom Depth
Sub Base	0'	10'
Fill	10'	21'
Sand and Shale	21'	935'
Upper Maxon	1020'	1043'
Lower Maxon	1684'	1698'
Little Lime	1745'	1813'
Big Lime	1857'	2100'
Big Injun	2111'	2138'
Middle Weir	2328'	2343'
Lower Weir	2485'	2506'
Berea	2561'	2573'
Middle Huron	3753'	4167'
Lower Huron	4654'	5072'

# State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE: 9/28/2010 9/18 API#: 47-502361 / 3

arm name:Berwin Winifrede	Operator We	<sub>II No.:</sub> BW-62	>	
OCATION: Elevation: 1424 FT	Quadrangle:		-	<del></del> ;
District: Sherman  Latitude: 14,030 Feet South of 8 Deg.  Longitude 4,210 Feet West of Deg.	10 Boo			
ompany: Northstar Energy Corn	2.		<b>.</b>	ere:
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
900 Lee St. E Ste. 940 Charleston, WV	Conduct.	32'	30'	up Cu. Tt.
Agent: James Abcouwer	9 5/8"	946'	940'	376
Inspector: Barry Stollings	7" -	2248'	2244'	487
Date Permit Issued: 12/28/2010				
Date Well Work Commenced: 1/24/2011				
Date Well Work Completed: 2/1/2011				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cobles Rig				
Total Vertical Depth (ft): 5588				
Total Measured Depth (ft): 5585				
Fresh Water Depth (ft.): 235, 342,412				
Salt Water Depth (ft.): 1345, 1867				
Is coal being mined in area (NY)?				
Coal Depths (ft.): 328, 887, 894				
Void(s) encountered (N/Y) Depth(s) N				
PEN FLOW DATA (If more than two producing formations.  Producing formation Lime, Inj, Ber, Weir Hulpay zo Gas: Initial open flow 312 MCF/d Oil: Initial open flow Final open flow 243 MCF/d Final open flow Time of open flow between initial and final tests 48	ne depth (ft) 55  vBb1/c  Hours	/d	a on separate she	eet)
Static rock Pressure 290 psig (surface pressure) after	Hours		ing fire goding	-WET
Second producing formationPay zone	depth (ft)		CAR IN	Widno and
Gas: Initial open flow MCF/d Oil: Initial open flow	vBb1/	'd	140	2.00
Final open flow MCF/d Final open flow	Bbl/d	i	MAR 1	1 2013
Time of open flow between initial and final tests	Hours		10	
ify under penalty of law that I have personally examined and			3" 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	JATO .

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

9-27-11

Were core samples taken? Yes	Were cum	ngs caught during drilling? Yes No
Were Hectrical, Y Mechan	nical, or Geophysical logs recorded	d on this well?
NOTE: IN THE AREA BELOVER FRACTURING OR STIMULATING DETAILED GEOLOGICAL RECO	W PUT THE FOLLOWING: 1). I	DETAILS OF PERFORATED INTERVALS, THE WELL LOG WHICH IS A SYSTEMATIC
Perforated Intervals, Fracturing, or Stin	nulating:	
Naturally Producing Well		
Formations Encountered: Surface:	Top Depth	/ Bottom Depth
Sub Base	0'	10'
<b>-</b>	10'	21'
Sand and Shale	21'	935'
Jpper Maxon	1018'	1032'
ower Maxon	1158'	1191'
Little Lime	2118'	2188'
Big Lime	2304'	2474'
3ig Injun	2481'	2510'
Middle Weir	2608'	
ower Weir	2853'	2645'
Berea	2938'	2900'
fiddle Huron	4112'	2943'
ower Huron	4975'	4454'
farcellus Shale	5504	.5438'
	3304	5558'

#### State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE: 9/28/2010

API#: 47-3906280

Wen Operator	is report or v	veil work		
Farm name: Berwin Marmet	Operator Wel	<sub>l No.:</sub> BM-26		
LOCATION: Elevation: 955 FT				
District: Loudon  Latitude: 13,000 Feet South of 81 Deg.  Longitude 11,220 Feet West of 81 Deg.	Quadrangle: E County: Kan 15 Min 32 Min	awha		
Latitude: 13,000 Feet South of 81 Deg. Longitude 11,220 Feet West of 81 Deg.	32 Min	30 Sec		
Company: Marthstal Energy	Cox	su		
Address:	Casing & U	Used in drilling	Left in well	Cement fill up Cu. Ft.
900 Lee St. E Ste. 940 Charleston, WV	Conduct.	32'	30'	up Cu. It.
Agent: James Abcouwer	9 5/8"	436'	432'	318
Inspector: Terry Urban	7"	1348'	1344'	395
Date Permit Issued: 12/28/2010				
Date Well Work Commenced: 1/16/2011				
Date Well Work Completed: 1/23/2011				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 2236				
Total Measured Depth (ft): 2230				
Fresh Water Depth (ft.): 286, 364				
Salt Water Depth (ft.): 856, 1086				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 220, 645, 866				
Void(s) encountered (N/Y) Depth(s) N				
OPEN FLOW DATA (If more than two producing formation Producing formation Lime, Inj, Weir Pay zo Gas: Initial open flow 243 MCF/d Oil: Initial open flow Final open flow MCF/d Final open flow Time of open flow between initial and final tests 48  Static rock Pressure 280 psig (surface pressure) after	one depth (ft) <sup>21</sup> wBblBbl/Hours	/d d	a on separate she	
Second producing formation Pay zone	e depth (ft)	Phi.	" OHONG	and Sec.
Gas: Initial open flowMCF/d Oil: Initial open flo	. , ,			
Final open flow MCF/d Final open flow		d N	IAR 1 1 2013	

EIN IL I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Bbl/d

Final open flow \_\_\_\_\_

Time of open flow between initial and final tests\_\_\_\_\_Hours Static rock Pressure \_\_\_\_\_psig (surface pressure) after \_\_\_\_\_Hours

Final open flow MCF/d

were core samples taken? Yes	No	Were cuttings caught during dr	illing? Yes	No
Were Electrical, Y Mechanic	cal, or Geophysical Y/N	logs recorded on this well?		
NOTE: IN THE AREA BELOW FRACTURING OR STIMULATING DETAILED GEOLOGICAL RECOR ENCOUNTERED BY THE WELLBO	, PHYSICAL CHANGE D OF THE TOPS AND	, ETC. 2). THE WELL LOG ' BOTTOMS OF ALL FORMA	WHICH IS A	CVCTEMAATT
Perforated Intervals, Fracturing, or Stimu	ilating:			
Naturally Producing Well				
Formations Encountered: Surface:	Top Depth	/	Bottom	<u>Depth</u>
Sub Base	0'			10'
-ill	10'			21'
Sand and Shale	21'	**************************************		935'
Jpper Maxon	935'			972'
ower Maxon	1032'			1062'
ittle Lime	1347'			1486'
ig Lime	1664'			1742'
lig Injun	1780'			1798'
fiddle Weir	1983'			2017'
ower Weir	2133'			2185'
			<del> </del>	

WR-35 ... Rev (8-10)

### State of West Virginia Department of Environmental Protection Office of Oil and Gas

DATE:	10/8/2011
API#:	47-502132 F

Well Operator's Report of Well Work

Farm name:Berwin Winifrede	Operator Well	<sub>No.:</sub> BW-51	(F)	
LOCATION: Elevation: 1041 FT Quadrangle: Belle 7.5'				
District: Sherman  Latitude: 13,600 Feet South of 38 Deg.  Longitude 3580 Feet West of 81 Deg.	County: Book Min. Min.	ne 00 <sub>Se</sub>		
Company: Northstar Energy Corp	2.			
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
900 Lee St. E Ste. 940 Charleston, WV	Conduct.	28'	28'	up cu. 1 t.
Agent: James Abcouwer	9 5/8"	565'	565'	258
Inspector: Barry Stollings	7"	1809'	1809'	366
Date Permit Issued: 03/31/2008	4 1/2"		5161'	498
Date Well Work Commenced: 4/12/2008			1	
Date Well Work Completed: 4/12/2008				
Verbal Plugging:			<del></del>	<del>                                     </del>
Date Permission granted on:		<u> </u>		
Rotary Cable Rig				
Total Vertical Depth (ft): 5183'				
Total Measured Depth (ft): 5171'				
Fresh Water Depth (ft.): 296',362'				
Salt Water Depth (ft.): 1257', 1428'				
Is coal being mined in area (N/Y)? N		·		<u> </u>
Coal Depths (ft.): 385-388		······		
Void(s) encountered (N/Y) Depth(s) N				
OPEN FLOW DATA (If more than two producing formation Producing formation Pay z  Gas: Initial open flow 420 MCF/d Oil: Initial open flow MCF/d Final open flow Time of open flow between initial and final tests 48  Static rock Pressure 980 psig (surface pressure) after the producing formation open flow producing formation pay z  Pay z  OPEN FLOW DATA (If more than two producing formation producing formation open flow pay z  Pay z  OPEN FLOW DATA (If more than two producing formation pay z  Pay z  OPEN FLOW DATA (If more than two producing formation pay z  Pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  Pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  Pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two producing formation pay z  OPEN FLOW DATA (If more than two pay z  OPEN FLOW DATA (If more than two pay z  OPEN FLOW DATA (If more than two pay z  OPEN FLOW DATA (If more than two pay z  OPEN FLOW DATA (If more than two pay z  OPEN FLOW DATA (If more than two pay z  OPEN FLOW DATA (If more th	one depth (ft)4 DWBb Bbl Hours	346 Vd /d	ata on separate sh	leet)
Second producing formation Lime  Pay zon  Gas: Initial open flow MCF/d Oil: Initial open flow  Final open flow MCF/d Final open flow		l/d	<b>₹</b> \$\$.	
Time of open flow between initial and final tests	Hours		M	AD 1 1 2013
Static rock Pressurepsig (surface pressure) after	erHours	3		
			<i>"</i> •	

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature Signature

<u>/0-/0-//</u> Date

5.02/32F

were core samples taken? 1es	_ NO were	cuttings caught during drilling	g? YesNo^_
Were Electrical, Y Mechan	ical, or Geophysical logs rec Y/N	corded on this well?	
NOTE: IN THE AREA BELOW FRACTURING OR STIMULATING DETAILED GEOLOGICAL RECO ENCOUNTERED BY THE WELLE	G, PHYSICAL CHANGE, ETC. RD OF THE TOPS AND BOTT	. 2). THE WELL LOG WHI OMS OF ALL FORMATIO	ICH IS A SYSTEMATIC
Perforated Intervals, Fracturing, or Stin	nulating:	·	
2 fracture zones performed on	the well Universal Well S	ervices Tested lines	s to 4200 psi
1st- Huron Perf Intervals 3111	'-4346' Nitrogen Fracture,	16 holes total Total N	litrogen = 1.55 mil SC
200 gal. 15% HCL in Hole. Bro			
2nd- Big Lime Perf Intervals 19 2750 gal. 15% HCL in Hole. Br		· · · · · · · · · · · · · · · · · · ·	
Formations Encountered: Surface:	Top Depth		Bottom Depth
Sub Base	0'		10'
Fill	10'		21'
Sand and Shale	21'		935'
Upper Maxon	1011'		1129'
Lower Maxon	1496'		1625'
Little Lime	1771'		1822'
Big Lime	1828'		2052'
Big Injun	2063'		2107'
Middle Weir	2183'		2199'
Lower Weir	2248'		2284'
Berea	2514'		2524'
Middle Huron	3715'		3922'
Lower Huron	4003'		4348'
Marcellus Shale	5131'		5162'
			***************************************

Static rock Pressure

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE: 1-30-2013 API #: 47-039-06329

Farm name: Penn Virginia - Carbon Fuel	Operator Wel	1 No.: CF.	- 2H	
LOCATION: Elevation: 654	Quadrangle: _	Beda	e Grove	7.5
Latitude: 9 870 Feet South of 38 Deg.	Min	30 Sec		
District: <u>Cabin Creek</u> Latitude: <u>9,370</u> Feet South of <u>38</u> Deg. Longitude <u>9,900</u> Feet West of <u>81</u> Deg.	_ 27_Min.		•	
Company: Northstar Energy Cor	(A)	TT 1:	T - 0 :	T
Address: 900 Lee St. E, Ste940	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Charleston, WV 25301	133/8"	10'	10	1
Agent: Nancy M. Abcouner	9 5/8 "	262'	262'	277 cf
Inspector: T. Urban	73/8"	1302	1302'	235cf
Date Permit Issued: 2-27-2012	4.5"	5.124'	5.124'	80 cf
Date Well Work Commenced: 3 / 26/2012		, , , , , , , , , , , , , , , , , , , ,		
Date Well Work Completed: 5/25/2012				
Verbal Plugging:		INTO TIME AT	Delan gran	
Date Permission granted on:		Off: HEC	EIVED	
Rotary Cable Rig V		Office o	Oil & Gas	
Total Vertical Depth (ft): 1894		MAR	1 4 2013	
Total Measured Depth (ft): 5/60		107 115	- 1 (01)	
Fresh Water Depth (ft.): 340		WV Dep	artment of	
Salt Water Depth (ft.):	E	ovironmen	ital Protec	tion
Is coal being mined in area (NY)? Strip only				
Coal Depths (ft.): Above elev.				
Void(s) encountered (NY) Depth(s)				
OPEN FLOW DATA (If more than two producing formation  Producing formation  Pay zo	ns please includ	e additional dat		eet)
Gas: Initial open flow 420 MCF/d Oil: Initial open flo	ow_ O Bb	1/d 06	CELLIONO	
Final open flow 312 MCF/d Final open flow	<b>O</b> Bbl/	/d	of 0"	
Time of open flow between initial and final tests 4		Office	13 5013	of co
Static rock Pressure 325 psig (surface pressure) after	er 48 Hours		FEB .	entection
Second producing formationPay zone	e depth (ft)		26.60iui	broje
Gas: Initial open flowMCF/d Oil: Initial open flo	wBbl	l/d 、	FEB 1.2 2013 FEB 1.2 2013	
Final open flow MCF/d Final open flow		'd	MOLI	
Time of open flow between initial and final tests	Hours	101		

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

\_\_\_\_psig (surface pressure) after \_\_\_\_

1-30-2013

Were core samples taken? YesNo	Were cuttings caught during drilling? YesNo
Were Electrical, Mechanical or Geophysical le	ogs recorded on this well? If yes, please list G.R./Cement bond.
DETAILED GEOLOGICAL RECORD	THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, YSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING BORE FROM SURFACE TO TOTAL DEPTH.
Perforated Intervals, Fracturing, or Stimulating	$oldsymbol{\mathfrak{g}}$
8-stage frac in Weir 7	from 5,120' measured depth to 2,050' total
ARDIN WITH 250 TO 30	6 Stage Severation 750 from
71921 . 167, 263 SCT N.	357 5KS 20NO Sand 240 hhl strong QOE ham
2105 272 1,403.840SC+ N	1992 SKS 20140 sand 504 bbl alunus an han
DINGE 773 . 1. 652,140 SCF N.	187 sks 20/40 cond to 7 hhl slyamy 5 91 hours
Plug Back Details Including Plug Type and De	414 sks 20/40 sand; 205 bb   slurry @ 10.6 bpm
Stage 7+8: 949,600 scf N.	754 sks 20/40 Sand, 425 bbl slurry@ 8.9 hpm
Formations Encountered:	
Surface:	Top Depth / Bottom Depth
Sub base Off Shale Sand	RECEIVED ice of Oil & Gas 0 / 10'  MAR 1 4 2013 85 / 14 5
Sand + Shalann	
Sand Enviror	Department of 145 / 205  monte Protection 5 / 239
Shale	239/ 284
Sand	284/555
Salt sand	555/ 710
Maxton	210/ 960
Sand + Shale	960/1065
Little Lime	1065/ 1095
Big Lime	
Big Injun	1290 / 1313
Big Injun Sandy shale Self and shale	1318 / 1393
and shale	
Weir	1708 / 1898

### State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE: 1-30-2013 API#: 47-039-06330 H

Well Operator	r's Report of V	Vell Work		
Farm name: Penn Virginia - Corbon Fuel			4 и	4
LOCATION: Elevation: 654'		Cedar Gi	ove 7,5	
District: <u>Cabin Creek</u> Latitude: <u>9.310</u> Feet South of <u>38</u> Deg. Longitude <u>9.870</u> Feet West of <u>81</u> Deg.	County: /	Kanawha 30 Sec	}	-
Longitude 9,870 Feet West of 81 Deg.	27 Min			
Company: North star Energy Co				
Address: 900 Lee St E., Ste 940	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Charleston WV 25301	13 3/8 "	10'	10	up Cu. Pt.
Charleston, WV 25301 Agent: Nancy M. Abconwer	9 5/8"	592'	592'	480 cuft.
Inspector: T. Urhan	73/8"	1080	1,080	182 cn A.
Date Permit Issued:	4.5"	5,132'	5,132'	83 cuft.
Date Well Work Commenced: 3/30/2012	71.5	7,725	3,100	os carr.
Date Well Work Completed: 6/4/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig V				A Rem Pro
Total Vertical Depth (ft): 1,896			RECE	il & Gas
Total Measured Depth (ft): 5/60			Office of C	HI & Cas
Fresh Water Depth (ft.): 342			MAR 1	2013
Salt Water Depth (ft.):			mrm -	
Is coal being mined in area (NY)? Strip only			WV Depa	riment of
Coal Depths (ft.): above well elev.		Er	vironment	al Protection
Void(s) encountered (NY) Depth(s)				
OPEN FLOW DATA (If more than two producing formation Producing formation Pay zo	ns please includ	e additional dat	a on separate she	eet)
Gas: Initial open flow 450 MCF/d Oil: Initial open flo	ow $\mathcal{O}$ Bb			
Final open flow 350 MCF/d Final open flow	O Bbl	/d	- =NED	and the
Time of open flow between initial and final tests	Hours		RECEIVED	d Gas
Static rock Pressure 360 psig (surface pressure) after	er <u>48</u> Hours	Offic	RECEIVED ce of Oil and	
Second producing formationPay zone	e depth (ft)		-0122	113
Gas: Initial open flowMCF/d Oil: Initial open flo	w Bbl	/d	FED 1	ant of
Final open flow MCF/d Final open flow	Bbl/	'd	101 0000m	or orection
Time of open flow between initial and final tests	Hours		MAN	The state of the s

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

Static rock Pressure\_\_\_\_\_psig (surface pressure) after \_\_\_\_\_Hours

/<u>- 30 - 2013</u> Date

Were core samples taken? YesNo	Were cuttir	igs caug	ht during dri	lling? YesNo
Were Electrical, Mechanical or Geophysical logs record				
NOTE: IN THE AREA BELOW PUT THE FRACTURING OR STIMULATING, PHYSICAL DETAILED GEOLOGICAL RECORD OF THE COAL ENCOUNTERED BY THE WELLBORE FOR STORY OF	CHANGE, ETC. 2). T E TOPS AND BOTTO ROM SURFACE TO T 5, ) 28' m eas	HE WE OMS OF OTAL	ELL LOG W FALL FOI DEPTH. / deatl	MICH IS A SYSTEMATIC RMATIONS, INCLUDING  2.034 / tota /
Perforated Intervals, Fracturing, or Stimulating depth with 250' to 300' Sta	ge seperation	n . '	75-Q	foam.
Stage 1: 562,562 scf N, 498 sk	s 20/40 sand,	244		,
Stage 2: 487,000 scf N, 489		248	1	urry @ 35.8
Stage 3: 499,606 scf N, 493 Stage 4: 474,000 scf N, 493	4	244	4 1	1rry @ 34.3
Stage 4: 474,000 scf N, 493 Stage 5: 455,000 scf N, 494	SKS 20/40	227	- 11 1	urry 035.6
Stage 6: 424 918 CAP N 399	sks 20/40 sks 20/40	<u>255ء</u>	1 1	lurry @ 35,5
Plug Back Details Including Plug Type and Depth(s):		1111	, , , <u>, , , , , , , , , , , , , , , , </u>	Wrty @ 36.0
Stage 7: 444,000 SCF N, 392	3KS 20/40	207	bb   5	wrry @ 34.8
Stage 8: 403,883 scf, N, 360	3K3 20/40	184	E 14d.	urry @ 36.0
Formations Encountered: Surface:	Top Depth	/		Bottom Depth
Distriction of the second of t				- RAIMIN DADIN
P. A. h.				
Sub base	. 0		10	
SAU LE			85	
Cond - chala	85		<u> 145</u>	RECEIVED
Sand Sand	145		205	Office of Oil & Gas
- Shale	205	<del>-/-</del>	2.40	
Sand	240	<del>/</del> _	712	MAR 1 4 2013
Salt send	712	<del></del>	597	
Maxton	<u> </u>	<del></del>	712	Environmental Protectio
Sand + Shale	712	4	962	
Little Lime	962	<del></del>	1067	
Big Lime	1067	<del>/</del>	1097	· .
Big Iniun	1154	<del>/</del>	1292	
Sandy Shale	1315	<del></del>	1315	
Sitt and shale	1395	<del>'</del>	1395	
Weir	1373		1896	
	1 710		1016	

### State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

ON: Elevation: 1055	_ Quadrangle:	CLEND	ENIN 7.5	
District:         BIG         SANDY           Latitude:         Feet South of         Deg           Longitude         Feet West of         Deg	_ County:	KAHA	WHA_	<u>-</u>
Latitude: Feet South of Deg.	Min	nS	ec.	
Longitude Feet West of Deg	gMii	nS	ec.	
Company: RAVEN RIDGE ENERGY L	LC			
Address: 3230 PENNSYLVANIA AVE	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
CHARLESTON WY 25302				
Agent: RYAN CUNNINGHAM				
Inspector: TERRY URBAN	95/8		380	C75
Date Permit Issued: 2-13-2012	7		1832	C75
Date Well Work Commenced: 3-15-2012	41/2		2371	1000' up
Date Well Work Completed: 3-28-2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 2504	ļ	<u> </u>		
Total Measured Depth (ft): 2504				
Fresh Water Depth (ft.):				
Salt Water Depth (ft.):				
Is coal being mined in area (NY)?				
Coal Depths (ft.):				
Void(s) encountered (N/Y) Depth(s)				
FLOW DATA (If more than two producing formati	ons please inclu	de additional	data on separate si	heet)
oducing formation WEIR Pay	zone depth (ft)_		data on separate si RECF Office of C	IVED GOS
s: Initial open flow 60 MCF/d Oil: Initial open f		bl/d	SECT	Sil and Cir
Final open flow 6 MCF/d Final open flow Time of open flow between initial and final tests		ol/d	Office or	
tic rock Pressure prize psig (surface pressure) at				28 2013
	<u></u>	-0	FEO	epartment nental prote
	ne depth (ft)		O Low	epuriliprote
s: Initial open flowMCF/d Oil: Initial open f Final open flowMCF/d Final open flow		b1/d o1/d	Min	epartment nental Prote
Time of open flow between initial and final tests			EUR	
tic rock Pressure psig (surface pressure) at				

I that the information is true, accurate, and complete.



Were core samples taken? Yes	No We	re cuttings caught during drill	ing? Yes_ $ u$ _ No
Were Electrical, Mechanical or Geoph DENSITY , IN DUCT	nysical logs recorded on this well?	If yes, please list	RAY /NEUTRON
NOTE: IN THE AREA BELO' FRACTURING OR STIMULATIN DETAILED GEOLOGICAL REC COAL ENCOUNTERED BY THE	NG, PHYSICAL CHANGE, ETC CORD OF THE TOPS AND I	C. 2). THE WELL LOG WI BOTTOMS OF ALL FOR	HICH IS A SYSTEMATIC
Perforated Intervals, Fracturing, or Sti	mulating:		
PERF WEIR 2100-	DMA 01 1 8615	2156-2196 2/2	o Holes
750 331	75% Quailt	Le France En	A C.
500 90/ 157	HED 286	SKS 20/4	(a Same)
Plug Back Details Including Plug Type	e and Depth(s):		
Formations Encountered:	Top Depth	I	Bottom Depth
Surface:			
		_	
SAND AND SHALE	0-405	BIG LIME	1830 - 1860
Sand	405-555	BIG INJUN	1860 - 1945
SAND AND SHALE	555-700	SQUAW	1945-1995
Sand	700 - 840	SHALE	1995-2100
SHALE	840-905	WEIR	2100 - 2195
SAND	905-970	SHALE	2195 - 2380
SAND AND SHALE	970 - 1040	COFFEE SHAVE	2380-2395
SAND	1040-1080	5 yale	2395-2504
SAND AND SHAVE	1080-1235	TD	2504
SALT SANDS	1235 -1600		
Shale	1600-1640		
MAXTON	1640-1770		
Share	1770-1805		
LITTLE LIME	1305-1820		
PENCIL CAVE	1820-1830		

### State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1-10-13		
API#:	47-039-04333		

ATION: Elevation: 1085	_ Quadrangle:	CLEND	EUIN 7.5	
District: BIG SANDY Latitude: 1720 Feet South of 38 Deg		n. <u>00</u> S	ec.	
Longitude 10,470 Feet West of 81 Deg	. <u>20</u> Mir	n. <u>Qo</u> S	ec.	
Company: RAVEN RIDGE ENERGY	Lic			
Address: 3230 PENNSYLVANIA AVE	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
CHARLESTON WV 25302				
Agent: RYAN CUNNINGHAM	95/8		386	CTS
Inspector: TERRY URBAN	7		1874	CTS
Date Permit Issued: 2-13-12	41/2		2376	1000 11 up
Date Well Work Commenced: 3-20-12				
Date Well Work Completed: 3-24-12				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 2472				
Total Measured Depth (ft): 2472				
Fresh Water Depth (ft.):		<del>                                     </del>		
Salt Water Depth (ft.):				
Is coal being mined in area (NY)?				
Coal Depths (ft.):		1		<del> </del>
		-		
void(s) encountered (1v/1) Depth(s) 7v/	_i	.L	- CENTE	W GGE
PEN FLOW DATA (If more than two producing formati	ons please inclu	ide additional	data oir separate s	fleet)
Void(s) encountered (N/Y) Depth(s)  PEN FLOW DATA (If more than two producing formation Producing formatio	zone depth (ft)	2104 (	office or	Etne.
Final open flow MCF/d Final open flow	w / Ri	hl/d	CEB 28	3 20.
Time of open flow between initial and final tests	Hours		FLE	" " Ment of
Static rock Pressure //o psig (surface pressure) a			Eunitoutus MN Deb	ortment of ortment of otol Protect
	1 .1 (0)		MANAGE	(Hrs.
Second producing formation Pay zo Gas: Initial open flow MCF/d Oil: Initial open flow	one depth (ft)	bl/d	EUNING	
Final open flow MCF/d Final open flor		bl/d		

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

1-10-13

Were core samples taken?	Yes No	Were cuttings caught during	drilling? YesNo		
	or Geophysical logs recoll NDUCTION , TE	rded on this well? If yes, please list <u>&amp; A</u>	MMA RAY /NEUTRON		
NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.					
Perforated Intervals, Fracturi	ing, or Stimulating:				
PERF WEIR 2	104 - 2218 4/4	o Holës			
450	A31 75 0	ailt. Fram Eage			
500 15%	15151   13 70 Hels =	sou sks 20/40	Spell		
	7102				
Plug Back Details Including	Plug Type and Depth(s):				
Formations Encountered: Surface:		Top Depth /	Bottom Depth		
SHALE	0-270	BIG LIME	1850 - 1880		
SAND AND SHALK	270-540	BIG INJUN	1880-1965		
SHALE	540-715	SQUAW	1965-2005		
SAND	715-820	SHALE	2005-2104		
SAND AND SHALE	820-920	WEIR	2104-2218		
Shale	920 - 970	SHALE	2218-2472		
<u>Sand</u>	970 - 1000	TD	2472		
SHALE	1000 - 1060				
SAND AND SHALE	1060-1285				
SALT SANDS	1285 - 1610				
SHALE	1610-1650				
MAXTON	1650-1790				
SHALE	1790 - 1825		<u> </u>		
LITTLE LIME	1825-1835				
PENEIL CAYE	1835-1850				

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	
API#:	47 -039 -06334

Farm name: NAMCY GREEN	Operator We	11 No.: NAM	CY GREEN#	-A
LOCATION: Elevation: 1098			ENIN 7.5	
District: BIG SANDY  Latitude: 1520 Feet South of 38 Deg.  Longitude 11,840 Feet West of 81 Deg	County:	KANAY 1. 00 Se	VHA c.	
Company: RAVEN RIDGE ENERGY				
Address: 3230 PENNSYLVANIA AYE	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
CHARLESTON WV 25302				
Agent: RYAN CUNNINGHAM	95/8	380	380	C75
Inspector: TERRY URBAN	7	1892	1892	e75
Date Permit Issued: 4-5-2012	4/2		2385	1000 Fill up
Date Well Work Commenced: 4-24-12				11119
Date Well Work Completed: 5-/4-/2-				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 2443				
Total Measured Depth (ft): 2443				
Fresh Water Depth (ft.): NA			<del> </del>	
Salt Water Depth (ft.):				
Is coal being mined in area (NY)?				
Coal Depths (ft.):				
Void(s) encountered (N/Y) Depth(s)				
OPEN FLOW DATA (If more than two producing formatio	ns please includ	le additional da	ita on separate sh	cet)
Gas: Initial open flow 200 MCF/d Oil: Initial open flow	one depth (ft)_ owBb	<u>2140</u> Vd	RECEIVER ice of Oil at	no Gos
Final open flow MCF/d Final open flow Time of open flow between initial and final tests		/d Off	ice o.	- 030
Static rock Pressure /50 psig (surface pressure) aft	Hours er <u>36</u> Hours	S	FEB 28	्र क्षे (हार्
Gas: Initial open flowMCF/d Oil: Initial open flowMCF/d Final open flowMCF/d Final open flow Time of open flow between initial and final tests	Bbl	d Er	MA Debay	iment of al protection
Static rock Pressurepsig (surface pressure) after	erHours	6		

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete

1-10-13 Date

Were core samples taken?	Yes NoX	Were cuttings caught during	g drilling? Yes <u>X</u> No
Were Electrical, Mechanical	or Geophysical logs record	ed on this well? If yes, please list 4.	AMMA RAY NEUTRON ,
FRACTURING OR STIME DETAILED GEOLOGIC	MULATING, PHYSICAL C CAL RECORD OF THE	FOLLOWING: 1). DETAILS OF CHANGE, ETC. 2). THE WELL LO TOPS AND BOTTOMS OF ALL ROM SURFACE TO TOTAL DEPTH	G WHICH IS A SYSTEMATIC FORMATIONS. INCLUDING
Perforated Intervals, Fractur	ing, or Stimulating:		
PERFORATED	2142-2242 "	2/40	
	AL "/ 338 M		
757 133		Guality Form F	
W/500 g	14/ 15%	HCL 300 SKS	20/40 JAND
Plug Back Details Including	Plug Type and Denth(s):		•
- 1 ag 2 act 2 cans moraumg	Trug Type and Depth(s).		
Formations Encountered: Surface:		Top Depth /	Bottom Depth
SAND & SHALE	0-305	BIG INTUN	1010 - 1005
SAND	305 - 380	SQUAW	1910 - 1985 1985 - 2040
SAND & SHALE	380-635	SHALE	2040 - 2140
SHAVE	635-690	WEIR	2140-2246
SAND & SHALE	690-810	SHALE	2246-2443
SHALE	810-840	TD	2443
SAND	840-890		
SAND & SHALE	890-1255		
SALT SAKOS	1255-1656		
SHALE	1656-1685		
MAXTON	1685-1860		
SHALE	1860-1854		
LITTLE LIME	1854 - 1860		
PENCIL BAVE	1860-1876		
BIG LIME	1876-1910		

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	Revised 2/20/2013
API #:	47-049-02130

OCATION: Elevation: 1,251'	Quadrangle:	Shinnston		
District: Lincoln  Latitude: 590' Feet South of 39 Deg.  Longitude 7,320' Feet West of 80 Deg.	County: Mari 27 Min 17 Min	.30 Sec		
Company: XTO Energy Inc.				•
Address: PO Box 1008, Jane Lew, WV 26378	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
	20"	118'	118'	C.T.S.
Agent: Gary Beall	13 3/8"	580'	580'	300 bbls
Inspector: Tristan Jenkins	9 5/8"	3,050'	3,050'	1008.9 cuft
Date Permit Issued: 12/27/2010	5 1/2"	12,746'	12,727'	2626.8 cuft
Date Well Work Commenced: 5/27/2011				
Date Well Work Completed: 10/27/2011				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 7497'				
Total Measured Depth (ft): 12,746'				
Fresh Water Depth (ft.): 406'				· · · · · · · · · · · · · · · · · · ·
Salt Water Depth (ft.): None Encountered				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None Noted				
Void(s) encountered (N/Y) Depth(s) N				
OPEN FLOW DATA (If more than two producing formation	zone depth (ft)_ lowB wBb Hours	7441'-7497' bl/d bl/d	ata on separate s	• 
Second producing formation Pay 20 Gas: Initial open flow MCF/d Oil: Initial open flow MCF/d Final open flow Time of open flow between initial and final tests Static rock Pressure psig (surface pressure) as	lowB wBb Hours	bl/d bl/d	FED	,

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature 2-2/-

49.02130

Were core samples taken? YesNo_X
Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list
NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.
Perforated Intervals, Fracturing, or Stimulating:
Stg 1 Marcellus; 12,485'-12,655; 72 shots; Slick water frac; Avg treating 7032 psi@80 bpm; 85,874#s 100 mesh; 292,774#s 30/50 mesh; 7,413 bbl water, 1140 bbl treated water
Stg 2 Marcellus; 12,233'-12,403; 72 shots; Slick water frac; Avg treating 7163 psl@82 bpm; 87,700#s 100 mesh; 295,300#s 30/50 mesh; 7,594 bbl water, 1100 bbl treated water
Stg 3 Marcellus; 11,981'-12,151; 72 shots; Slick water frac; Avg treating 7079 psi@80 bpm; 87,085#s 100 mesh; 294,846#s 30/50 mesh; 8260 bbl water, 369 bbl treated water
Stg 4 Marcellus; 11,729'-11,899; 72 shots; Slick water frac; Avg treating 8059 psl@34 bpm; 10,697#s 100 mesh; 12,705#s 30/50 mesh; 11,600 bbl water, 45 bbl treated water
Stg 5 Marcellus; 11,343'-11,521; 72 shots; Slick water frac; Avg treating 7053 psi@81 bpm; 85,770#s 100 mesh; 297,209#s 30/50 mesh; 8,651 bbl water
Stg 6 Marcellus; 11,083'-11,261; 72 shots; Slick water frac; Avg treating 7026 psi@79 bpm; 87,563#s 100 mesh; 287,942#s 30/50 mesh; 8,935 bbl water
Plug Back Details Including Plug Type and Depth(s):
See additional page
Formations Encountered: Top Depth / Bottom Depth Surface:
Little Lime 1710 - 1723
Big Lime 1741 - 1836
Big Injun 1836 - 1900
5th Sand 2809 - 2833
Balltown 3709 - 3725
Geneseo Shale 7202 - 7251
Tully Limestone 7251 - 7302
Hamilton Shale 7302 - 7366
Upper Marcellus 7366 - 7457
Purcell Limestone 7457 - 7497

#### Fenn A 9H 47-049-02130

- Stg 7 Marcellus; 10,823'-11,001; 72 shots; Slick water frac; Avg treating 7093 psi@81 bpm; 87,842#s 100 mesh; 296,178#s 30/50 mesh; 8,544 bbl water
- Stg 8 Marcellus; 10,563'-10,741; 72 shots; Slick water frac; Avg treating 7186 psi@82 bpm; 85,213#s 100 mesh; 297,756#s 30/50 mesh; 8,617 bbl water
- Stg 9 Marcellus; 10,303'-10,481; 72 shots; Slick water frac; Avg treating 7209 psi@83 bpm; 85,312#s 100 mesh; 249,525#s 30/50 mesh; 7501 bbl water, 782 bbl treated water
- Stg 10 Marcellus; 10,043'-10,221; 72 shots; Slick water frac; Avg treating 7172psi@84 bpm; 85,808#s 100 mesh; 292,083#s 30/50 mesh; 6863 bbl water, 1660 bbl treated water
- Stg 11 Marcellus; 9,783'-9,961; 72 shots; Slick water frac; Avg treating 7021 psi@81 bpm; 85,024#s 100 mesh; 290,007#s 30/50 mesh; 7,336 bbl water, 1,117 bbl treated water
- Stg 12 Marcellus; 9,523'-9,701; 72 shots; Slick water frac; Avg treating 7077 psi@80 bpm; 83,170#s 100 mesh; 295,180#s 30/50 mesh; 7467 bbl water, 1079 bbl treated water
- Stg 13 Marcellus; 9,263'-9,441; 72 shots; Slick water frac; Avg treating 7052 psi@82 bpm; 83,851#s 100 mesh; 293,898#s 30/50 mesh; 7354 bbl water, 1158 bbl treated water
- Stg 14 Marcellus; 9,003'-9,181; 72 shots; Slick water frac; Avg treating 7037 psi@79 bpm; 85,712#s 100 mesh; 276,342#s 30/50 mesh; 7171 bbl water, 1117 bbl treated water
- Stg 15 Marcellus; 8,743'-8,921; 72 shots; Slick water frac; Avg treating 7103 psi@84 bpm; 83,845#s 100 mesh; 292,327#s 30/50 mesh; 7344 bbl water, 1100 bbl treated water
- Stg 16 Marcellus; 8,483'-8,661; 72 shots; Slick water frac; Avg treating 6721 psi@84 bpm; 88,154#s 100 mesh; 295,262#s 30/50 mesh; 7173 bbl water, 1301 bbl treated water
- Stg 17 Marcellus; 8,223'-8,401; 72 shots; Slick water frac; Avg treating 6937 psi@82 bpm; 86,114#s 100 mesh; 297,129#s 30/50 mesh; 7729 bbl water, 830 bbl treated water
- Stg 18 Marcellus; 7,963'-8,141; 72 shots; Slick water frac; Avg treating 6619 psi@84 bpm; 85,777#s 100 mesh; 298,734#s 30/50 mesh; 7,122 bbl water, 1,248 bbl treated water
- Stg 19 Marcellus; 7,703'-7,881; 72 shots; Slick water frac; Avg treating 7099 psi@79 bpm; 83,699#s 100 mesh; 297,771#s 30/50 mesh; 7582 bbl water, 863 bbl treated water

All: 0 6 2012

The Contract of Pro-

### State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE: 2013-02-28

45-01415 PP/ FRAC

rm name: Cole & Crane Trust	Operator Wel			
OCATION: Elevation: 1,259	Quadrangle:	PANTHER		
District: COLE, ALBERT H. Latitude: 37.737960533 Feet South of Deg.	County: Log	an, WV		<del></del>
Longitude -81.938661785 Feet West of Deg.		ıSe ıSe		
<u> </u>	<del></del>			
Company: EQT Production Company				
Address: EQT Plaza, Suite 1700	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
625 Liberty Avenue, Pittsburgh, PA 15222	13-3/8"	35'	35'	Grtd
Agent: Rex Cecil Ray	9-5/8"	406'	406'	229
Inspector:	7	2416'	2416'	415
Date Permit Issued: 2008-07-29	4-1/2	5503	5203	367
Date Well Work Commenced: 2009-03-28				
Date Well Work Completed: 2009-04-12				
Verbal Plugging: N/A		<del></del>		
Date Permission granted on:	_			
Rotary Cable Rig	-			
Total Vertical Depth (ft): 4,650				1
Total Measured Depth (ft): 8,350				
Fresh Water Depth (ft.): 52, 74, 184, 309			1	<del> </del>
Salt Water Depth (ft.): 671,946, 1844, 1997, 2241				
Is coal being mined in area (N/Y)? N Coal Depths (ft.): 115 and 175			<del></del>	<del> </del>
	<u> </u>	<del> </del>		
Void(s) encountered (N/Y) Depth(s) N			<u> </u>	<u> </u>
OPEN FLOW DATA (If more than two producing formation		ide additional o	iata on separate s	heet)
•	zone depth (ft)	4,267		.e
Gas: Initial open flow 1315 MCF/d Oil: Initial open flow 1039 MCF/d Final open flow		.bl/d	IET	J A GOS
Final open flow 1039 MCF/d Final open flow Time of open flow between initial and final tests		)/u	acceived	iuc
Static rock Pressure 1002 psig (surface pressure) af		rs	lsr. Ou	0
poig (ouriese prosecto) at		 F	Mice .	3 5012
Second producing formation Pay zon	ne depth (ft)		RECEIVED	3 2013 Portment Of Project
Gas: Initial open flowMCF/d Oil: Initial open fl		bl/d	In.	2041 DIOTOR
Final open flowMCF/d Final open flow			~ 1 OS	PUIOI,
Time of open flow between initial and final tests			Mank	ie.
Static rock Pressurepsig (surface pressure) af	terHou	rs	- wikow	

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Mile Butcher Signature

2013-02-28 Date

Were core samples taken?	Yes	No_X	Wer	e cuttings caught o	during drilling	? Yes_X_	_ No
Were Electrical, Mechanica	l or Geoph	vsical logs reco	orded on this well?	If ves, please list	Geophysica	al	
NOTE: IN THE AREA FRACTURING OR STIN DETAILED GEOLOGIC COAL ENCOUNTERED	MULATING CAL REC	G, PHYSICA ORD OF TH	L CHANGE, ETC IE TOPS AND I	C. 2). THE WELL BOTTOMS OF	L LOG WHIC ALL FORM	CH IS A SY	STEMATIC
Perforated Intervals, Fractur	ring, or Stir	nulating:					
See Attachment			· · · · · · · · · · · · · · · · · · ·				
Plug Back Details Including	g Plug Type	and Depth(s):	:				
N/A							
Formations Encountered: Surface:			Top Depth	/		Bottom D	<u>)epth</u>
Sand & Shale / 0 / 115	/ 115 (	Coal / 115 /	119 / 4 Sand	& Shale / 119	/ 175 / 56		
Coal / 175 / 179 / 4 - Sand	& Shale /	179 / 880 / 70	1 - Lee Sands / 88	30 / 1665 / 785	Pennington C	3roup / 166	5 / 2362 / 686
Little Lime / 2362 / 240	5 / 43 1	Pencil Cave	Shale / 2405 /	2425 / 20 Bi	g Lime / 24	25 / 2650	/212
Big Injun Sand / 2650	2754 / 1	04 Weir S	Sand / 2754 / 28	85 / 131 Ba	se Weir / 28	885 / 3209	9 / 324
Sunbury / 3209 / 3237	/ 28 Be	erea Sand /	3237 / 3255 / 1	8 Upper Dev	onian / 325	55 / 4267 /	/ 1012
Lower Huron Shale / 42	267 / 465	1 / 384 Jav	va Shale / 4651	/ 4781 / 130	Angola Sha	ile / 4781 /	4985 / 204
Rhinestreet Shale / 49	85						

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EQT WR-35	Completion	Attachment	Well	Treatment	Summary
Stage	Formation	Frac Type			
1	LOWER HURON	N²			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/19/2010	7319 - 7519		4,811.00	6,127.00	5 Min:
					10 Min:
Avg Rate	Max Press PSI	ISIP	Frac Gradient		15 Min:
98,976.00	6,299.00				
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		
		1,002,092.00			
Stage	Formation	Frac Type			
2	LOWER HURON	N <sup>2</sup>			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/19/2010	7033 - 7319		3,904.00	5,945.00	5 Min:
					10 Min:
Avg Rate	Max Press PSI	ISIP	Frac Gradient		15 Min:
102,573.00	6,003.00				
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		
•	7.10	1,003,421.00			
Stage	Formation	Frac Type	- <del></del>		
3	LOWER HURON	N <sup>2</sup>			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/19/2010	6792 - 7033		3,861.00	5,742.00	5 Min:
					10 Min:
Avg Rate	Max Press PSI	ISIP	Frac Gradient		15 Min:
104,760.00	5,768.00				
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		
	5.30	1,002,898.00			

	·				
EQT WR-35	Completion	Attachment	Well	Treatment	Summary
Stage	Formation	Frac Type			
4	LOWER HURON	N²			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/19/2010	6507 - 6792		3,596.00	5,419.00	5 Min:
					10 Min:
Avg Rate	Max Press PSI	ISIP	Frac Gradient		15 Min:
103,353.00	5,534.00				
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		
	5.70	1,003,655.00			
Stage	Formation	Frac Type	-		
5	LOWER HURON	N²			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/19/2010	6221 - 6507		3,649.00	5,648.00	5 Min:
					10 Min:
Avg Rate	Max Press PSI	ISIP	Frac Gradient		15 Min:
105,667.00	5,683.00	3,691.00			
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		
	5.40	1,004,707.00			
Stage	Formation	Frac Type			
6	LOWER HURON	N²			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/19/2010	5980 - 6221		3,690.00	5,498.00	5 Min:
					10 Min:
Avg Rate	Max Press PSI	ISIP	Frac Gradient		15 Min:
105,092.00	5,587.00				
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		
	6.50	1,002,328.00			

EQT WR-35	Completion	Attachment	Well	Treatment	Summary
Stage	Formation	Frac Type			
7	LOWER HURON	N²			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/19/2010	5695 - 5980		3,701.00	5,415.00	5 Min:
		•			
Ave Bete	Max Press PSI	ICID	Frac Gradient		10 Min: 15 Min:
<b>Avg Rate</b> 104,916.00	5,444.00	ISIP	riac Grauleiit		IJ WIIII.
104,910.00	3,444.00		•		
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		-
	5.60	1,004,067.00			
Stage	Formation	Frac Type			
8	LOWER HURON	N²			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/19/2010	5409 - 5695	•	3,738.00	5,301.00	5 Min:
Avg Rate	Max Press PSI	ISID	Frac Gradient		10 Min: 15 Min:
102,628.00	5,355.00	IOII	i iac Giauleiit		10 IVIII.
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		
	5.40	1,002,652.00			
Stage	Formation	Frac Type			
9	LOWER HURON	N <sup>2</sup>			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/19/2010	5168 - 5409	-	3,645.00	5,245.00	5 Min:
					40.14
Avg Rate	Max Press PSI	ISID	Frac Gradient		10 Min: 15 Min:
105,140.00	5,279.00	IGIF	. 140 Gladient		10 17
·					
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		
	5.90	1,004,821.00			

EQT WR-35	Completion	Attachment	Well	Treatment	Summary
Stage	Formation	Frac Type			
10	LOWER HURON	N²			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/19/2010	4883 - 5168	•	3,653.00	5,059.00	5 Min:
Avg Rate	Max Press PSI	ISID	Frac Gradient		10 Min: 15 Min:
104,167.00	5,180.00	Ю	i lac Gladielli		TO IVIIII.
104, 107.00	0,100.00				
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		
	5.30	1,002,532.00			
Stage	Formation	Frac Type			
11	LOWER HURON	N²			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/19/2010	4598 - 4883	•	3,557.00	4,851.00	5 Min:
Ava Boto	Max Press PSI	ISID	Frac Gradient		10 Min: 15 Min:
Avg Rate 103,129.00	4,879.00	igir	riac Gradient		10 141111.
105, 125.00	4,070.00				
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		
	6.30	1,002,058.00			
Stage	Formation	Frac Type			
12	LOWER HURON	N²			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/19/2010	4356 - 4598	·	3,632.00	5,164.00	5 Min:
					40.14
Aug Dete	Max Press PSI	ISID	Frac Gradient		10 Min: 15 Min:
Avg Rate 103,911.00			i lac Glaulelle		10 141111.
103,311.00					
Sand Proppant			Acid-Gal		
	2.70	1,002,473.00			

EOT MD 25	Campletien		\0/all	Tue of the out	Cummow
EQT WR-35	Completion	Attachment	Well	Treatment	Summary
Stage	Formation	Frac Type			
13	LOWER HURON	N <sup>2</sup>			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
8/19/2010	4071 - 4356	·	3,426.00	4,602.00	5 Min:
					10 Min:
Avg Rate	Max Press PSI	ISIP	Frac Gradient		15 Min:
102,558.00	4,629.00	2,985.00			
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		•
	5.50	1,002,891.00			
Stage	Formation	Frac Type			
14	BIG LIME	N <sup>2</sup>			
Date	From / To	# of perfs	BD Press	ATP Psi	SIP Detail
9/15/2010	2321 - 2331		5,949.00	3,687.00	5 Min: 2657
					10 Min:
Avg Rate	Max Press PSI	ISIP	Frac Gradient		15 Min:
29,160.00	3,995.00	3,182.00	1.46		
			4 - 1 - 1 - 1		
Sand Proppant	Water-bbl	SCF N2	Acid-Gal		

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	January 23, 2013	1
API#:	47-051-01396	

Farm name; Corley	Operator Wel	l No.: 1H				
LOCATION: Elevation: 1272	Quadrangle: _	Quadrangle: Powhatan Point 7.5'				
District: Franklin	County: Mars	hail				
	g. 47 Min		<u>с.</u>	<del></del>		
Longitude 3,760 Feet West of 80 De	eg. 45 Min	.00 Se	c.			
Company: Gastar Exploration USA, Inc.						
Address: 229 West Main St., Suite 301	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.		
Clarksburg, WV 26301	20"	40'	40'	Sanded		
Agent: Michael McCown	13-3/8"	1017'	1017'	975'		
Inspector: Carl McCune	9-5/8"	2481'	2481'	1058'		
Date Permit Issued: 01/24/2011	5-1/2"	12,407'	12,407'	3414'		
Date Well Work Commenced: 06/11/2011	2-3/8"		6786'			
Date Well Work Completed: 11/11/2011				-		
Verbal Plugging:						
Date Permission granted on:						
Rotary Cable Rig						
Total Vertical Depth (ft): 6,625'						
Total Measured Depth (ft): 12,408'						
Fresh Water Depth (ft.): 60'						
Salt Water Depth (ft.): 1,600'						
Is coal being mined in area (N/Y)? N						
Coal Depths (ft.): refer to page 2						
Void(s) encountered (N/Y) Depth(s) N						
OPEN FLOW DATA (If more than two producing forms	ntions please inclu y zone depth (ft)		ata on separate s	heet)		
Gas: Initial open flow 2658 MCF/d Oil: Initial open	1 flow_39B	bl/d				
Final open flow 2433 MCF/d Final open fl		ol/d				
Time of open flow between initial and final tests_2  Static rock Pressure 2250 csg. psig (surface pressure)						
prante toew t tessme bail (antrace biesame)	arter110tt	10				
. •	zone depth (ft)					
Gas: Initial open flow MCF/d Oil: Initial open	flow D	b1/d				

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

Static rock Pressure \_\_\_\_\_psig (surface pressure) after \_\_\_\_\_Hours

Date

Were core samples taken? Y	esNo_X	Were cuttings caught during	drilling? Yes X No
	or Geophysical logs recorded on the sti, Density, Induction, Mech	his well? If yes, please list n Prop, & XMAC	
FRACTURING OR STIMU DETAILED GEOLOGICA	ULATING, PHYSICAL CHAN AL RECORD OF THE TOPS	OWING: 1). DETAILS OF P GE, ETC. 2). THE WELL LOG S AND BOTTOMS OF ALL I SURFACE TO TOTAL DEPTH.	WHICH IS A SYSTEMATIC FORMATIONS, INCLUDING
Perforated Intervals, Fracturin	g, or Stimulating:		
Plug Back Details Including P	lug Type and Depth(s): Set	plug from 6220' to	, 6926' (MD)
Formations Encountered: Surface:	Top D	epth /	Bottom Depth
Sewickley:	Top:885, Base: 905	Java:	5378, 5698
Pittsburgh coal:	1061, 1071	Rhinestreet:	6190, 6500
Maxton:	1980, 2030	Cashaqua:	6547, 6692
Big Lime:	2043, 2073	Middlesex:	6642, 6662
Big Injun:	2079	West River:	6664, 6724
Base of Big Injun:	2223	Geneseo:	6726, 6744
Weir:	2397, 2567	Tully:	6740, 6775
Berea:	2581, 2821	Hamilton:	6786, 6836
Gordon:	2855, 2885	Marcellus:	6835, 6888
Benson:	3617, 3627	Onondaga:	6889, NA (TD'd before base)

Fluid & Sand Volume Summary - Corley #1H

<u>Date</u>	<u>Stage</u>	<u>Perforate</u>	<u>d interval</u>	Fluid Type	Frac Fluid	<u>Pump</u>	100 mesh	40/70 M	Total Sand	Avg Inj
		<u>From</u>	<u>To</u>			<u>Down</u>				
		ft	ft		bbls	bbls	lbs	lbs	lbs	BPM
9/26/2011	1	12133	12328	sik wtr	8000	0	88037	215635	303672	87.6
9/27/2011	1A	12133	12328	slk wtr	220	0	0	0	0	4.7
10/2/2011	2	11787	11893	sik wtr	9339	0	87701	282116	369817	87
10/2/2011	3	11535	11616	slk wtr	9446	335	87853	287496	375349	87
10/3/2011	4	11233	11443	slk wtr	9146	231	89881	272846	362727	87
10/3/2011	5	11143	10933	slk wtr	8649	308	89221	251517	340738	89
10/3/2011	6	10633	10843	slk wtr	9198	268	88058	274382	362440	87
10/4/2011	7	10333	10543	slk wtr	9493	260	88926	287687	376613	87
10/4/2011	8	10033	10243	slk wtr	8851	219	89308	287520	376828	88
10/5/2011	9	9733	9943	slk wtr	9617	276	89360	285181	374541	90
10/5/2011	10	9433	9643	slk wtr	8892	191	88114	282104	370218	86
10/6/2011	11	9133	9343	slk wtr	8757	142	89054	291266	380320	87
10/6/2011	12	8833	9043	sik wtr	8678	167	88395	288006	376401	86
10/6/2011	13	8533	8763	slk wtr	8705	134	90020	291594	381614	85
10/7/2011	14	8233	8443	slk wtr	8663	110	88370	289480	377850	86
10/8/2011	15	7841	8143	slk wtr	9076	141	· 88148	287189	375337	86
10/8/2011	16	7633	7843	slk wtr	8687	96	89042	289644	378686	87
10/8/2011	17	7333	7543	slk wtr	8686	75	89423	287961	377384	86
10/8/2011	18	7033	7243	slk wtr	8726	48	89240	289351	378591	86
	Totals				160829	3001	1598151	5040975		

Water to Recover 163830 bbls

### State of West Virginia Department of Environmental Protection Office of Oil and Gas

DATE:	January 23, 2013	i.
API#:	47-051-01397	

Well Operator's Report of Well Work

orm name: Corley  OCATION: Elevation: 1272'		Operator Well No.: 3H				
CATION: Elevation: 1272	Quadrangle: _	Quadrangle: Powhatan Point 7.5'				
District: Franklin	County: Mars					
	g. <u>47</u> Mir					
Longitude 5.770 Feet West of 50 De	eg. 45 Min	. <u>.00</u> Se	С.			
Company: Gastar Exploration USA, Inc.						
Address: 229 West Main St., Suite 301	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.		
Clarksburg, WV 26301	20"	40'	40'	Sanded		
Agent: Michael McCown	13-3/8"	1057'	1057'	914'		
Inspector: Carl McCune	9-5/8"	2506'	2506'	960'		
Date Permit Issued: 01/24/2011	5-1/2"	12,308'	12,308'	3394'		
Date Well Work Commenced: 07/06/2011	2-3/8"		6642'			
Date Well Work Completed: 11/15/2011						
Verbal Plugging:						
Date Permission granted on:						
Rotary Cable Rig						
Total Vertical Depth (ft): 6,633'						
Total Measured Depth (ft): 12,310'						
Fresh Water Depth (ft.): 60'						
Salt Water Depth (ft.): 1,600'						
Is coal being mined in area (N/Y)? N						
Coal Depths (ft.): refer to page 2						
Void(s) encountered (N/Y) Depth(s) N						
OPEN FLOW DATA (If more than two producing forma	y zone depth (ft) <sup>6</sup> 1 flow <sup>45</sup> Bl	5835' ol/d	ata on separate sl	neet)		
Time of open flow between initial and final tests 2	4 Hours					
Static rock Pressure 2300 csg. psig (surface pressure)	afterHou	rs				
	zone depth (ft)	<del></del>				
Gas: Initial open flowMCF/d Oil: Initial open		ol/d				
	owBb	Vd				
Time of open flow between initial and final tests						

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Were core samples taken?	YesNo_X	Were cuttings caught	during drilling? Yes X NoNo
Were Electrical, Mechanica YES: GR, Mudlog, Ac	al or Geophysical logs recorded or cousti, Density, Induction, Me	n this well? If yes, please list ech Prop, & XMAC	
FRACTURING OR STI DETAILED GEOLOGI	MULATING, PHYSICAL CHA	ANGE, ETC. 2). THE WEL PS AND BOTTOMS OF	OF PERFORATED INTERVALS, L LOG WHICH IS A SYSTEMATIC ALL FORMATIONS, INCLUDING EPTH.
Perforated Intervals, Fractu	ring, or Stimulating:		
Plug Back Details Including	g Plug Type and Depth(s):		
Formations Encountered: Surface:	Тор	Depth /	Bottom Depth
Sewickley:	Top:885, Base: 905	Java:	5378, 5698
Pittsburgh coal:	1061, 1071	Rhinestreet:	6190, 6500
Maxton:	1980, 2030	Cashaqua:	6547, 6692
Big Lime:	2043, 2073	Middlesex:	6642, 6662
Big Injun:	2079	West River:	6664, 6724
Base of Big Injun:	2223	Geneseo:	6726, 6744
Weir:	2397, 2567	Tully:	6740, 6775
Berea:	2581, 2821	Hamilton:	6786, 6836
Gordon:	2855, 2885	Marcellus:	6835, 6888
Benson:	3617, 3627	Onondaga:	6889, NA (TD'd before base)

Fluid & Sand Volume Summary - Corley #3H

<u>Date</u>	<u>Stage</u>	<u>Perforate</u>	d interval	Fluid Type	Frac Fluid	<u>Pump</u>	<u>100 mesh</u>	40/70 M	Total Sand	Avg Inj
		<u>From</u>	<u>To</u>			<u>Down</u>				
		ft	ft		bbls	bbls	lbs	lbs	lbs	BPM
9/19/2011	1	12033	12243	slk wtr	8967	0	88321	289166	377487	85
9/20/2011	2	11733	11943	slk wtr	8827	386	88803	287493	376296	86
9/20/2011	3	11433	11643	slk wtr	9025	340	88007	292688	380695	87
9/21/2011	4	11133	11343	sik wtr	8904	310	88404	287259	375663	87
9/21/2011	5	10833	11043	slk wtr	8943	326	88076	288113	376189	87
9/22/2011	6	10533	10743	slk wtr	8983	252	88048	290895	378943	87
9/22/2011	7	10233	10443	sik wtr	8885	199	88070	287271	375341	88
9/22/2011	8	9933	10038	sik wtr	8858	189	88242	286712	374954	86
9/23/2011	9	9633	9843	slk wtr	8773	214	88032	283854	371886	86
9/23/2011	10	9333	9543	slk wtr	8971	159	88128	287426	375554	84
9/24/2011	11	9033	9133	slk wtr	8772	133	88112	287174	375286	86
9/24/2011	12	8733	8943	slk wtr	8873	118	88087	287448	375535	91
9/24/2011	13	8433	8643	slk wtr	9043	102	88102	289126	377228	88
9/25/2011	14	8133	8343	slk wtr	8873	89	88134	287287	375421	90
9/25/2011	15	7833	8043	slk wtr	8943	56	88337	286789	375126	90
9/25/2011	16	7533	7743	slk wtr	8768	45	88209	287045	375254	91
9/26/2011	17	7140	7443	slk wtr	8946	41	88047	290773	378820	87
	Totals				151354	2959	1499159	4896519		

Water to Recover 154313 bbls

**DATE: 2/18/13** 

API#: 47-073-01609-R

#### State of West Virginia **Department of Environmental Protection** Office of Oil and Gas

#### Well Operator's Report of Well Work

Farm name: Lillian Cornell

Operator Well No.: 2

LOCATION: Elevation: 1005'

Quadrangle: Schultz - 7.5'

District: Jefferson

County: Pleasants

Latitude: 11130' Feet South of 39 Deg. 20 Min. 0.0 Sec.

Longitude 8270' Feet West of 81 Deg. 12 Min. 30.0 Sec.

Company: Schultz Run Gas Company

- · ·	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.	
Address: 300 Capitol Street, Suite 1500					
Charleston, WV 25301					
Agent: Pete Pauley					
Inspector: Joe Taylor	8 5/8"	975'	975'	CTS	
Date Permit Issued: 9/7/10					
Date Well Work Commenced: 10/27/10					
Date Well Work Completed: 10/31/10					
Verbal Plugging:	4 1/2"	4100'	4100'	By rule 35 CSR 4-11.1	
Date Permission granted on:					
Rotary X Cable Rig					
Total Depth (feet):		RECE	INED		
Fresh Water Depth (ft.): N/A		Office of (	AL R GAS		
		Ottles or a			
Salt Water Depth (ft.): 1200'			2013		
		FEB 2	A 5013		
Is coal being mined in area (N/Y)? No					
Coal Depths (ft.):		MAN Den	attment of		
OPEN FLOW DATA	WV Department of Environmental Protection				

#### OPEN FLOW DATA

Producing formation: Salt Sand - Pay zone depth (ft) 1072'- 1132'

Gas: Initial open flow: TSTM MCF/d Oil: Initial open flow

Bbl/d

Final open flow 15 MCF/d (Comingled) Final open flow 0 Bbl/d

Time of open flow between initial and final tests Hours Static rock Pressure 250 #'s psig (surface pressure) after 24 Hours

Second producing formation: Maxton Sandstone - Pay zone depth (ft) 1530'- 1544'

Gas: Initial open flow TSTM MCF/d Oil: Initial open flow 0 Bbl/d

Final open flow 15 MCF/d (Comingled) Final open flow 0 Bbl/d

Time of open flow between initial and final tests 24 Hours Static rock Pressure 250#'s psig (surface pressure) after 24 Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR SPIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed:

By: Fete Pauley, President, Schultz Run Gas Co.

Date: 2/18/13

73.01609R

### WR-35 – Page 2 Details of Frac

API #: 47-073-01609 -R

Well Name: Cornell # 2

District: Jefferson County: Pleasants

Company Name: Schultz Run Gas Company

Date of Squeeze Job -9/17/10 - Perf 4 holes from 1590-1594

Squeezed to 762' Cement Bond Log Run on 10/26/10

STAGE 1 - Maxton

Perforate Maxton from 1534'-1544' - 8 holes of 3 1/8" HSC perf.

Stage 1 of 2: Frac w/ Universal Well Service – 75 Quality Foam Frac using 220,000Scf N2 – 25,100 #'s of 20/40 Sand and 500 Gal of 15% HCL – Breakdown @ 2866#'s.

Set Temporary Plug @ 1206'

STAGE 2 - Salt Sand

Perforate Salt Sand from 1142'-1134' – 8 holes of 3 1/8" HSC perf and from 1126'-1116' – 8 holes of 3 1/8" HSC

Stage 2 of 2: Frac w/ Universal Well Service – 75 Quality Foam Frac using 298,227 Scf N2 – 28,400 #'s of 20/40 Sand and 500 Gal of 15% HCL – Breakdown @ 3774 #'s.

### State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	March 4, 2013
API#:	47-7302512
	72.02542

		Quadrangle: Willow Is	land	<del></del>
		County: Pleasants		
et South of	Deg.	Min.	Sec.	
et West of	Deg.	Min.	Sec.	
	et South ofet West of	et South ofDeg.	et South of Deg Min	et South of Deg Min Sec.

Address: P.O. Box 129	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Wooster, OH 44691	9-5/8"	250'	250'	cmt to surface
Agent: Henry W. Sinnett	7"	1223'	1223'	167 cu/ft.
Inspector: Joe Taylor	4-1/2"	3926'	3926'	248 cu/ft.
Date Permit Issued: 4/5/12				
Date Well Work Commenced: 5/1/12				
Date Well Work Completed: 12/30/12				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 3952'				
Total Measured Depth (ft): 3952'				
Fresh Water Depth (ft.): 60'				
Salt Water Depth (ft.): 750'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): —				
Void(s) encountered (N/Y) Depth(s) -				

Producing formation Shale		Pay zone der	oth (ft) 3120-3141	
Gas: Initial open flow -0-	_MCF/d (	Oil: Initial open flow0-	Bbl/d	
Final open flow 5	_MCF/d	Final open flow0	Bbl/d	
Time of open flow between	en initial a	nd final tests 72	_Hours	
Static rock Pressure 1100	psig (su	rface pressure) after 72	Hours	
Second producing formation	Shale	Pay zone depth	(ft) 2828-2864	RECEIVE
Gas: Initial open flow0-	_MCF/d (	Oil: Initial open flow0-	Bbl/d	at Chi
Final open flow 5	_MCF/d	Final open flow0-	Bbl/d	Borce
Time of open flow between	en initial a	nd final tests 72	_Hours	Me G
		-fo-sa massaura) -Ass. 72	ITana	

I certify under penalty of law that I have personally examined and am familiar with the information submitted on the document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

### Page 2 – OPEN FLOW DATA

Producing formation	5 <sup>th</sup>	Pay zone depth (	ft) <u>2142-2</u>	<u> 172</u>
Gas: Initial open flow0-				
Final open flow5_M	CF/d Final open	flow <u>-0-</u> Bbl/d		
Time of open flow between	en initial and fina	al tests 72 Hours		
Static rock Pressure 600	psig (surface p	ressure) after <u>72</u>	Hours	
D	Candan Canta	D	المار المسال	1060 2010
Producing formation	Gordon-Gantz	Pay zone	depth (It)	1968-2018
Gas: Initial open flow0-	<u></u> MCF/d Oil: I1	nitial open flow <u>l</u>	_Bbl/d	
Final open flow 5 M	CF/d Final open	flow 1_Bbl/d		
Time of open flow between	en initial and fina	al tests 72 Hours		
Static rock Pressure 600	nsig (surface r	ressure) after 72	Hours	

Were core samples taken? Yes	No_X Were cutting	gs caught during drilling? YesNo	<u>X</u>
Were Electrical, Mechanical or Geophys Temperature, Gamma Ray, Neutron, Density & Induction	ical logs recorded on this well? If yes,	please list	
FRACIUMING OR SITINULATING	, PHYSICAL CHANGE, ETC. 2). TI RD OF THE TOPS AND ROTTO	ETAILS OF PERFORATED INTERV HE WELL LOG WHICH IS A SYSTEMA MS OF ALL FORMATIONS, INCLUI OTAL DEPTH.	A 7878 C
Perforated Intervals, Fracturing, or Stimu	llating:		
Perfs: 3120 - 3141, 14 shots. Frac w	// 319 Bbls. water: 261,924 SCF Nitr	ogen 15,000# 20/40 sand. Set baffle @ ;	2880
Perf: 2828 - 2864, 17 shots. Frac	w/ 248 Bbls. water: 223,611 SC	CF Nitrogen 15,000# sand. 16 BPM.	
Plug Back Details Including Plug Type a	nd Depth(s):		
Formations Encountered: Surface:	Top Depth	/ Bottom Depth	
Big Injun	1124	1170	
Berea	1577	1579	
Gantz	1692	1740	
Gordon	1830	1855	
5th Sand	2142	2172	
Shale	2172	4050	

### Page 2 - Perforated Intervals, Fracturing, or Stimulating

Perforated Intervals, Fracturing, or Stimulating:

Perf: 2142-2172, 31 shots. Frac w/ 40,880 Gal. Water. 10,000# 20/40 sand. 20 BPM @ 2790 psi

Perf: 1968-2018, 51 shots. Frac w/ 21,012 Gal. Water. 9,000# 20/40 sand. 10 BPM @ 2930 psi

DATE: 9/26/12 API # : 47-085-09869~ **F** 

## State of West Virginia Department of Environmental Protection Office of Oil and Gas

### Well Operator's Report of Well Work

Farm name: FOX	Oper	ator Well No.:_	42	
LOCATION: Elevation: 948'	Quad	lrangle: <u>HA</u>	RRISVILLE 7.5	<u>,                                      </u>
District: GRANT	Cou	nty: RITCHIE		
Latitude: 6030' Feet South of 30	Deg. 12	Min. 30	Sec.	
Longitude 6640' Feet West of 81	Deg. <u>05</u>	Min. <u>00</u> S	ec.	
Company: TERM ENERGY CORPORATION				
-	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 713 EAST MAIN ST.				
HARRISVILLE, WV 26362	9 5/8"	252'	252'	C.T.S.
Agent: LEROY BAKER				
Inspector: DAVE COWAN	7"	1225'	1225'	248.8 cu. Ft.
Date Permit Issued: 7/10/12				
Date Well Work Commenced: 8/13/12	4 ½"	4302'	4302'	434.2 cu. Ft
Date Well Work Completed: 8/13/12				
Verbal Plugging:				
Date Permission granted on:				<u> </u>
Rotary X Cable Rig				
Total Depth (feet): 4615'				
Fresh Water Depth (ft.): 75'				
Salt Water Depth (ft.): none				
•				
Is coal being mined in area (N/Y)? N			·	
Coal Depths (ft.): N/A				
OPEN FLOW DATA				
Producing formation Big Injun	<b>.</b>	Pay zon	e depth (ft) 19	00' to 1906'
Gas: Initial open flowMCF/d Oil:	Initial open flo	owB	bl/d	
Final open flow MCF/d	Final open flow		Bbl/d	
Time of open flow between initial and f	inal tests	Hour	<u>-</u> 5	
Static rock Pressurepsig (surface				
Second producing formation <u>Maxton</u>			e depth (ft)_16	85' to 1691'
	Initial open flo		bl/d	
Final open flow 20 MCF/d	Final open f	low <u>5</u>	_Bbl/d	رورا وسر
Time of open flow between initial and f	inal tests	Hours	S S	
Static rock Pressure 230 psig (sur	rface pressure)	after <u>24</u>	_Hours	J. K.
NOTE: ON BACK OF THIS FORM PUT THE FINTERVALS, FRACTURING OR STIMULATING OWNICH IS A SYSTEMATIC DETAILED	IG, PHYSICAI	L CHANGE, E	TC. 2). THE W	BLL
INCLUDING COAL ENCOUNTERED BY THE		_	1.,	
Signed:				
By: Leroy Baker - Age	nt			
Date: 9/26/12		<del></del>	\$ 24 5°	
			W .2	

#### FOX #42 47-085-09869 8/13/12 See previous WR-35

85-09869F

### Set frack plug at 2014'

1st Stage Big Injun (15 holes) (1900' - 1906')

753 Gal. Acid, Avg. Pres.2376, Avg. Rate 18.6 BPM, 403,771 scf N2, 200 sks 20/40 sand, 139 bbls fluid

Set frack plug at 1700'

2<sup>nd</sup> Stage Maxton (14 holes) (1685' – 1687') (1689' – 1691')

500 Gal. Acid, Avg. Pres.2457, Avg. Rate 17.7 BPM, 198104 scf N2, 100 sks 20/40 Sand, 104 bbls fluid

#### **WELL LOG**

Sand, Shale & Red Rock	0'	1660'
Maxton	1660'	1694'
Sand & Shale	1694'	1802'
Big Lime	1802'	1847'
Keener	1847'	1910'
Big Injun	1910'	1986'
Sand & Shale	1986'	2070'
Weir	2070'	2170'
Sand & Shale	2170'	2345'
Berea	2345'	2354'
Sand & Shale	2354'	2451'
Gantz	2451'	2463'
Sand & Shale	2463'	2739'
Gordon	2739'	2754'
Sand & Shale	2754'	3314'
Warren	3314'	3320'
Sand & Shale	3320'	3452'
Upper Speechley	3452'	3520'
Sand & Shale	3520'	3546'
Lower Speechley	3546'	3808'
Sand & Shale	3808'	3840'
Balltown	3840'	4171'
Sand & Shale	4171'	4208'
Bradford	4208'	4213'
Sand & Shale	4213'	4615' TD

Water shows: 75' Damp

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	02/01/2013	
API #:	47-091-01126	

arm name: Denjen, Richard L.	_ Operator Wel	l No.: W.M. Con	pton 1A	
OCATION: Elevation: 1993	Quadrangle: _	Gladesville 7.5'		
District: Fetterman  Latitude: 4,500 Feet South of 39 Deg  Longitude 5,300 Feet West of 79 Deg		. <u>30</u> Sec		
Company: Petroleum Development Corporation				
Address: 120 Genesis Boulevard	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Bridgeport, WV 26330	11 3/4"	33,		
Agent: Bob Williamson	8 5/8"	1054'	1054'	345
Inspector: Joe McCourt	5 1/2"	8092'	8092'	384
Date Permit Issued: 04/23/2009				
Date Well Work Commenced: 08/19/2009	2 3/8"		7914'	
Date Well Work Completed: 11/02/2009				
Verbal Plugging:				
Date Permission granted on:		25	<b>GEIVED</b>	
Rotary Cable Rig		Office	of Oll & G	85
Total Vertical Depth (ft): 8041'				
Total Measured Depth (ft): 8165'		M.A	R 0 6 2013	
Fresh Water Depth (ft.): 233', 270'			- nortmon	t of
Salt Water Depth (ft.): N/A		WVL	epartmen mental Pro	tection
Is coal being mined in area (N/Y)? N		EUAILOUI	lientai 110	
Coal Depths (ft.): NR				
Void(s) encountered (N/Y) Depth(s) N				
Gas: Initial open flow MCF/d Oil: Initial open	y zone depth (ft) 1 flowB 1 nwB 1 Hour	7935° Bbl/d bl/d s	ata on separale s	heet)
Second producing formation Pay:				
Gas: Initial open flow MCF/d Oil: Initial open Final open flow MCF/d Final open flow	lowB	bl/d		
Time of open flow between initial and final tests_	Hour	S		
Static rock Pressurepsig (surface pressure)	afterHo	urs		
certify under penalty of law that I have personally examined the attachments and that, based on my inquiry of those in that the information is true, accurate, and complete.	ed and am familic dividuals immed	r with the infor iately responsib	mation submitte de for obtaining	d on this document the information I b
The William		02	07/2013	
Signatur	e		Date	

91-01126

Were core samples taken?	YesNo_XX	Were cuttings caught during drilling? Yes XX No
Were Electrical, Mechanica	l or Geophysical logs recorded on	this well? If yes, please list Mud Log from 1100'- TD. Schlumberger
		THOSE HOLL GOOD SOOD COMMENT BUY EDG HOLL GOOD.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

10/23/09: MIRU Hotwell & perf Marcellus from 8063-73 & 8028-38,11/02/2009:Two-stage Marcellus completion, The first stage was a slickwater treatment with 2360 sks of 100 mesh and 2697.71 sks of 40/70 mesh white sands. The clean volume pumped was 10,503 bbl. The breakdown pressure was 3925 psi, with an initial ISIP of 3705 psi (FG=0.89). The well treated at an average rate of 65 bpm with an average treating pressure of 4980 psi. ISIP, 4094 psi. MIRU Hotwell & set Alpha plug @ 7990'. Perf 2nd stage in Marcellus from 7935-7955. 2nd stage was a slickwater treatment with 2310 sks of 100 mesh and 2197.12 sks of 40/70 mesh white sands. The clean volume pumped was 8416 bbl, The breakdown pressure was 4135 psi, with an initial ISIP of 4144 psi Pling Back Details Industrials Pling Price and Deptile : 1 (FG=0.95, possibly inflated due to the possible charge from stage I). The well treated at an average rate of 75 bpm with an average treating pressure of 5890 psi. ISIP, 4250 psi.

Formations Encountered:		Top Depth	1		Bott	om Depth	
Surface:							
Little Lime	1008	1022		Tully	7520	7648	
Big Lime	1044	1218		Marcellus	7984	8081	Gas
Injun	1218	1277		Onondaga	8081	8098	
Pocono	1308	1389		Huntersville	8098	8165	MD-TD
Berea	1404	1434					
50 Foot	1600	1622					
30 Foot	1644	1670					
4th Sand	2132	2170					
5th Sand	2242	2303					
Balltown	3170	3404					
Riley	3942	3951					
Benson	4199	4254					
Elks	4804	4858	Gas				
Sycamore	6780	6800					
Geneseo	7513	7520	Gas				

## State of West Virginia Division of Environmental Protection Section of Oil and Gas

## Well Operator's Report of Well Work

Farm name:	TALKINGT	ON, MARK	Ope	erator Wel	l No.: S. P	. LEMASTERS	M-10
LOCATION:	Elevation:	1,114.00		drangle:		POINT 7.5'	
	District: Latitude: Longitude:	MCELROY 12,700 Feet south of 2,300 Feet west of	39	inty: TY Deg 30 Deg 40	LER Min 0	Sec.	
Company:	P.O. BOX 55	URCES, INC. 119 V 26105-5519		Casing/ tubing Size		Left in Well	Cement Fill Up Cu. Ft.
Agent:	PHILIP S. OI	NDRUSEK					
Inspector: Permit Issued: Well work Com Well work Com Verbal plugging	pleted:	R 01/18/11 08/15/11 08/17/11				·	
permission gran Rotary X Total Depth (fee Fresh water dep	_Cable et)	Rig 3142 NONE		8 5/8"	393.50'	220'	150 sks
Salt water depth		NONE		4 1/2"	3083.25'	3083.25'	300 · sks
Is coal being mic Coal Depths (ft)	ned in area (Y/l	N) N NONE					
OPEN FLOW D	ATA	*WATERFLOOD INJECT	OR				
Gas: Static ro	producing form producing form Initial open flow Final open flow Time of open tock pressure	# MC flow between initial and psignation w	F/d final g (sur F/d F/d final (sur	Oil: Initia Final I tests face pres  Oil: Initia Final tests face press	al open flow l open flow sure)  Pay zone de l open flow sure)	Hours  pth (ft)  Hours  Hours	2991-3044  * Bbl/d  Bbl/d  Hours  Bbl/d  Bbl/d  Hours
OK STIMOTATING	, PHYSICAL CH	PUT THE FOLLOWING: 1) DE ANGE, ETC. 2) THE WELL LO ORMATIONS, INCLUDING CO	G W	TICH IS A S	DRATED INT SYSTEMATION RED BY THE	ERVALS, FRACT	URING
		For: EAST RES  By:  Date:	OUR	CES, INC	1/1/13	lh	

Treatment:

Swabbed well -spotted 500 gals 15%HCL - loaded well with fresh water- perforated Gordon

3020'-3040'- shot perforations with gas gun

returned well to injection

Well Log:

SEE ORIGINAL WELL RECORD

I w Lift

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	Feb. 27th, 2013
API#:	047-095-02032

n name: Ball	Operator Well	No.: 1 n		<del></del>
CATION: Elevation: 1195 ft	Quadrangle: F	Porter Falls		
District: Ellsworth	County: Tyler			
Latitude: N39.50596 Feet South of Deg.	Min	. Sec		
Longitude Feet West of Deg.	Min	Sec	<b>.</b> .	
Company: Petroedge Energy LLC	1	1	T. 0: ""	Cement fill
Address: 4477 Williamstown Pike	Casing & Tubing	Used in drilling	Left in well	up Cu. Ft.
Williamstown, WV 26187	20"	30	30	Cement to surface
Agent: Dan Mullins	13 3/8"	530	530	Cement to Surface
Inspector: Joe Taylor	9 5/8"	2765	2765	Cement to surface
Date Permit Issued: 7/28/11	5 1/2"	13465	13414	Cement to surface
Date Well Work Commenced: 10/21/11	2 3/8"		7325.8	Production Tubing
Date Well Work Completed: 2/13/13				
Verbal Plugging:				
Date Permission granted on:	<u></u>			
Rotary Cable Rig 🗸	:		<u> </u>	
Total Vertical Depth (ft): 6910				ļ
Total Measured Depth (ft): 13465				
Fresh Water Depth (ft.): 155				
Salt Water Depth (ft.): 1580				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 175				
		<u></u>		<u></u>
Gas: Initial open flow 2000 MCF/d Oil: Initial open flow 4219 MCF/d Final open flow Time of open flow between initial and final tests 120	zone depth (ft) flow <sup>0</sup> E w 168 B	Bbl/d bl/d s	-4	
Static rock Pressure 3100 psig (surface pressure) a		urs	###	A2 0 4 2013
	one depth (ft)	 Bbl/d	ý.	KA-
Gas: Initial open flow MCF/d Oil: Initial open flow MCF/d Final open flow MCF/d Final open flow		bl/d		
Time of open flow between initial and final tests	Hour			
Static rock Pressure psig (surface pressure) a	after Ho	urs	41.5	

all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

3/1/13



Were core samples taken? YesN	No X Were cuttings ca	aught during drilling? Yes X NoNo			
Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Mud Log, GR, CBL  Drill cuttings were collected, analyzed, and disposed of with the rest of the drill cuttings					
FRACTURING OR STIMULATING, DETAILED GEOLOGICAL RECOR	PHYSICAL CHANGE, ETC. 2). THE	AILS OF PERFORATED INTERVALS, WELL LOG WHICH IS A SYSTEMATIC OF ALL FORMATIONS, INCLUDING AL DEPTH.			
Perforated Intervals, Fracturing, or Stimul	lating:				
Perforated Marcellus Shale: 737	79' - 13363'				
20 Stage Stimulation					
843,900 lbs 100 mesh, 5,958,00	0 lbs 40/70 mesh, 821,200 lbs 2	0/40 mesh			
154,372 bbls water					
Plug Back Details Including Plug Type ar	nd Depth(s):				
Cast Iron Bridge Plug @ 13	400'				
Formations Encountered: Surface:	Top Depth /	Bottom Depth			
Coal	175	177			
Gordon	3140	3186			
Warren	3619	3652			
Java	5270	5310			
Lower Alexander	5514	5569			
Rhinestreet	6367	6621			
Middlesex	6621	6822			
West River	6822	6938			
Genesee	6938	6955			
Tully	6955	. 7032			
Hamilton	7032	7143			
Marcellus	7143				

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	January 9, 2013
API#:	47-95-02033

Farm name: Anne Spencer			Operator Well No.: 1112				
LOCATION: Elevation: 703'	Quadrangle: Paden City						
District: Ellsworth		Coun	<sub>ity:</sub> Tyler				
Latitude: 14,711	Feet South of 39	Deg. 30	Min. 04.59	Sec.			
Longitude 9,073	Feet West of 80	Deg. 54	Min. 25.79	Sec.			

Company: )

Company:				
Address: Triad Hunter, LLC	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 430, Reno, Ohio 45773				
Agent: Kimberly Arnold	20"	40'	40'	
Inspector: Joe Taylor	13 3/8"	444'	444'	438 cu. ft.
Date Permit Issued: 7/19/2011	9 5/8"	1972'	1972'	789 cu. ft.
Date Well Work Commenced: 11/11/11	5 1/2"	11015'	11013'	3193 cu. ft.
Date Well Work Completed: 11/09/12	2 3/8"			
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 5996.5' pb TV	D 6215			
Total Measured Depth (ft): 11062'	•			·
Fresh Water Depth (ft.):				
Salt Water Depth (ft.):				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.):				
Void(s) encountered (N/Y) Depth(s) None				

OPEN FLOW DATA (If more to Producing formation Marcell		ns please include additional one depth (ft)6020	l data on separate sheet)
Gas: Initial open flow 850	MCF/d Oil: Initial open fl	ow 2.19 Bbl/d	
Final open flow 4246	_MCF/d Final open flow	9.10 Bbl/d	
Time of open flow between	en initial and final tests 359	Hours	
Static rock Pressure 700	psig (surface pressure) aft	ter 359 Hours	
Second producing formation	Pay zor	ne depth (ft)	
Gas: Initial open flow	MCF/d Oil: Initial open fl	owBbl/d	
Final open flow	_MCF/d Final open flow	Bbl/d	FED % 6 17.3
Time of open flow between	en initial and final tests	Hours	
Static rock Pressure	psig (surface pressure) aft	terHours	

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature \(\frac{1}{2}\)

95.02033

Were core samples taken? Yes No	samples taken? Yes No Were cuttings caught during drilling? Yes X No				
Were Electrical, Mechanical or Geophysica	l logs recorded on this well? If yes, please list_				
FRACTURING OR STIMULATING, P DETAILED GEOLOGICAL RECORD	UT THE FOLLOWING: 1). DETAILS HYSICAL CHANGE, ETC. 2). THE WELL O OF THE TOPS AND BOTTOMS OF A LLBORE FROM SURFACE TO TOTAL DE	LOG WHICH IS A SYSTEMATIC ALL FORMATIONS, INCLUDING			
Perforated Intervals, Fracturing, or Stimulat	ting:				
Please see attached sheet.					
rease see attached sheet.					
	<del></del>				
Plug Back Details Including Plug Type and	Depth(s):				
Formations Encountered:	Top Depth /	Bottom Depth			
Surface:					
0'- 376' shale	2012'-2107' Weir	6014'-6068' Marcellus			
376'- 426' siltstone and shale	2107'-2132' shale and siltstone	6068'-TD Onondaga			
426'- 886' shale and siltstone	2132'-2136' Berea	6215			
886'-923' sandstone	2136'-2609' shale and siltstone				
923'-960' shale, trace siltstone	2609'-2626' Fifth Sand				
960'-1092' 1st Salt Sand	2626'-3141' shale trace siltstone				
1092'-1146' shale	3141'-3189' 1st Warren				
1146'-1183' 2nd Salt Sand	3189'-4504' shale silstone				
1183'-1394' shale and siltstone	4504'-4540' Riley				
1394'-1428' 3rd Salt Sand	4540'-4650' Base of Huron Shale				
1428'-1552' shale and siltstone	4650'-5284' Angola				
1552'-1644' Greenbrier Lime	5384'-5716' Java				
1644'-1650' shale	5716'-5883' Middlesex				
1650'-1821' Big Injun	5883'-5990' Geneseo				
1821'-2012' shale, trace siltstone	5990'-6014' Tully Lime				

## Spencer #1112 Perf Spacing for 17 Stages

95.02033

Stage Length: 250 Number of Clusters: 4

Dist. Between Perfs: 61'

Perf Length: 3'

Stages: 17 Start Depth: 10917'

90 @: 6904

		90 @:	6904				_ <u></u> _		061	0014	DDA4	bbls	lbs
							FT	PSI	PSI	BPM	BPM		
		Plug Depth	Interval 1	interval 2	Interval 3	Interval 4	Stage Length	Avg Treating Pressure	Max Pressure	Avg Rate	Max Rate	Fluid Volume	Total Sand
Stage	1	10917	10881'-10884'	10813'-10816'	10799'-10782'		195	7465	8471	53	55	2459	5200
Stage	2	10722	10697'-10694'	10633'-10630'	10569'-10566'	10505'-10502'	250	7114	8142	76	82	8495	440000
Stage	3	10472	10442'-10439'	10378'-10375'	10314'-10311'	10250'-10247'	260	8272	8972	61	69	2571	2500
Stage	4	10212	10187'-10184'	10123'-10120'	10059'-10056'	9995'-9992'	260	6708	8653	70	81	6139	138500
Stage	5	9952	9932'-9929'	9868'-9865'	9804'-9801'	8704'-9737'	245	6746	7486	73	76	8674	440000
Stage	6	9707	9677'-9674'	9613'-9610'	9549'-9546'	9458'-9482'	255	6647	6939	76	81	8577	440000
Stage	7	9452	9422'-9419'	9358'-9355'	9249'-9291'	9230'-9227'	255	6454	6948	75	81	8593	440000
Stage	8	9197	9167'-9164'	9103'-9100'	9039'-9036'	8975'-8972'	267	6551	6931	76	82	8497	440000
Stage	9	8930	8912'-8909'	8848'-8845'	8784'-8781'	8720'-8717'	248	6681	7096	71	75	8623	440000
Stage	10	8682	8657'-8654'	8593'-8590'	8529'-8526'	8465'-8462'	250	6437	7096	74	76	9705	440000
_	11	8432	8402'-8399'	8338'-8335'	8274'-8271'	8210'-8207'	255	6396	7134	75	80	8728	440000
Stage	12	8177	8147'-8144'	8083'-8080'	8019'-8016'	7955'-7952'	255	6158	6398	79	82	8610	440000
Stage		7922	7892'-7889'	7828'-7825'	7764'-7761'	7700'-7697'	255	6305	6554	79	82	8458	440000
Stage	13			7573'-7570'	7509'-7506'	7445'-7442'	255	6125	6477	77	80	8382	440000
Stage	14	7667	7637'-7634'							75	80	8602	440000
Stage	15	7412	7382'-7379'	7318'-7315'	7254'-7251'	7190'-7187'	247	6095	6603				
Stage	16	7165	7148'-7145'	7063'-7060'	6999'-6996'	6935'-6932'	263	6173	6710	77	81	8626	440000
Stage		6902	6872'-6869'	6808'-6805'	6744'-6741'	6680'-6677'	6902	5841	6233	78	81	8478	440000
_													

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	January 9, 2013
API#:	47-95-02034

Farm name: Anne Spencer			Operator Well No.: 1113			
LOCATION: Elevation: 703'		Quad	rangle: Paden Ci	ty		
District: Ellsworth		Coun	<sub>ity:</sub> Tyler			
Latitude: 14,711	Feet South of 39	Deg. 30	Min. 04.59	Sec.		
Longitude 9,089	Feet West of 80	Deg. <u>54</u>	Min. 25.99	Sec.		

Company:				
Address: Triad Hunter, LLC	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 430, Reno, Ohio 45773				
Agent: Kimberly Arnold	20"	40'	40'	
Inspector: Joe Taylor	13 3/8"	442'	440'	408 cu. ft.
Date Permit Issued: 6/21/2011	9 5/8"	2009'	2009'	796 cu. ft.
Date Well Work Commenced: 12/9/11	5 1/2"	10566'	10539'	3399 cu. ft.
Date Well Work Completed: 11/15/12	2 3/8"			
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 6029'				
Total Measured Depth (ft): 10566'				
Fresh Water Depth (ft.):				
Salt Water Depth (ft.):				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.):				
Void(s) encountered (N/Y) Depth(s) None				

PEN FLOW DATA (II more t			ise include addit	ional data on separate sneet)
Producing formation Marcelle	us Shale	Pay zone de	pth (ft)6030	_
Gas: Initial open flow 850	_MCF/d	Oil: Initial open flow 2.19	9Bbl/d	
Final open flow 4092	_MCF/d	Final open flow 9.00	Bbl/d	
Time of open flow between	n initial a	and final tests 359	Hours	
Static rock Pressure 720	psig (su	rface pressure) after 354	Hours	Em De was
Second producing formation		Pay zone dept	h (ft)	
Gas: Initial open flow	_MCF/d	Oil: Initial open flow	Bbl/d	
Final open flow	_MCF/d	Final open flow	Bbl/d	
Time of open flow between	n initial a	nd final tests	Hours	
Static rock Pressure	psig (su	ırface pressure) after	Hours	

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete

Signature

95.02034

Vere core samples taken? YesNo_X Were cuttings caught during drilling? Yes_X No									
Were Electrical, Mechanical or Geophysical	logs recorded on this well? If yes, please list_								
NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.									
Perforated Intervals, Fracturing, or Stimulati	ing:								
Please see attached sheet.									
		···							
Plug Back Details Including Plug Type and	Depth(s):	19							
Formations Encountered: Surface:	Top Depth /	Bottom Depth							
0'- 376' shale	2012'-2107' Weir	6014'-6068' Marcellus							
376'- 426' siltstone and shale	2107'-2132' shale and siltstone	6068'-TD Onondaga							
426'- 886' shale and siltstone	2132'-2136' Berea								
886'-923' sandstone	2136'-2609' shale and siltstone								
923'-960' shale, trace siltstone	2609'-2626' Fifth Sand								
960'-1092' 1st Salt Sand	2626'-3141' shale trace siltstone								
1092'-1146' shale	3141'-3189' 1st Warren								
1146'-1183' 2nd Salt Sand	3189'-4504' shale silstone								
1183'-1394' shale and siltstone	4504'-4540' Riley								
1394'-1428' 3rd Salt Sand	4540'-4650' Base of Huron Shale								
1428'-1552' shale and siltstone	4650'-5284' Angola								
1552'-1644' Greenbrier Lime	5384'-5716' Java								
1644'-1650' shale	5716'-5883' Middlesex								
1650'-1821' Big Injun	5883'-5990' Geneseo								
1821'-2012' shale, trace siltstone	5990'-6014' Tully Lime								

### Spencer #1113

### Perf Spacing for 27 Stages

Stage Length: 150'
Number of Clusters: 3
Dist. Between Perfs: 47'
Perf Length: 3'

Stages: 27

Start Depth: 10460'

90 @: 6057'

	Plug Depth	Interval 1	Interval 2	Interval 3	Interval 4	Stage Length	Avg Treating Pressure	Max Pressure	Avg Rate	Max Rate	Fluid Volume	Total Sand
1							7380	9000	78.4	79	7186	214500
							7245	8281	63.5	66	8383	266000
							7057	8203	66	73.4	8262	266000
4			9970'-9967'	9920'-9917'		155	6368	7764	72	81	6155	266000
5	9889	9870'-9867'	9820'-9817'	9770'-9767'		145	6586	7065	76	81	5748	266000
6	9744	9720'-9717'	9670'-9667'	9620'-9617'		150	6450	7704	76	81	5941	266000
7	9594	9570'-9567'	9520'-9517'	9470'-9467'		121	6635	7102	79	87	5833	266000
8	9473	9420'-9417'	9370'-9367'	9320'-9317'		179	6708	7383	78	82	6139	265500
9	9294	9270'-9267'	9220'-9217'	9170'-9167'		150	7446	8927	55	57	2000	3500
10	9144	9120'-9117'	9070'-9067'	9020'-9017'		200	6950	7402	76	81	5968	266000
11	8944	8970'-8967'	8920'-8917'	8870'-8867'		105	6994	7523	74	80	5979	266000
12	8839	8820'-8817'	8770'-8767'	8720'-8717'		190	6732	7263	70	82	5862	266000
13	8649	8670'-8667'	8620'-8617'	8570'-8567'		105	6578	6879	72	79	5960	266000
14	8544	8520'-8517'	8470'-8467'	8420'-8417'		150	6824	7273	73	78	5776	266000
15	8394	8370'-8367'	8320'-8317'	8240'-8267'		150	6354	7063	77	81	5801	266000
16	8244	8220'-8217'	8170'-8167'	8120'-8117'		150	6713	7354	75	80	6005	266000
17	8094	8070'-8067'	8020'-8017'	7970'-7967'		150	6563	7271	73	81	5711	266000
18	7944	7920'-7917'	7870'-7867'	7820'-7817'		150	6331	6632	77	80	5723	266000
19	7794	7770'-7767'	7720'-7717'	7670'-7667'		150	6530	8026	69	77	5442	242500
20	7644	7620'-7617'	7570'-7567'	7520'-7517'		153	6253	7131	66.5	76	5643	266000
21	7491	7470'-7467'	7420'-7417'	7370'-7367'		247	6352	6998	72	77	6295	266000
22	7244	7320'-7317'	7270'-7267'	7220'-7217'		50	6551	7636	68	77	5806	266000
23	7194	7170'-7167'	7120'-7117'	7070'-7067'		155	6401	6829	73	80	5769	266000
24	7039	7020'-7017'	6970'-6967'	6920'-6917'		145	6359	6961	73	80	5748	266000
25	6894	6870'-6867'	6820'-6817'	6770'-6767'		122	6065	6383	75	80	5724	266000
26	6772	6720'-6717'	6670'-6667'	6620'-6617'		178	6199	7079	75	81	5810	266000
27	6594	6570'-6567'	6520'-6517'	6470'-6467'		150	6785	7996	37	40	2612	3000
	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	2 10344 3 10194 4 10044 5 9889 6 9744 7 9594 8 9473 9 9294 10 9144 11 8944 12 8839 13 8649 14 8544 15 8394 16 8244 17 8094 18 7944 19 7794 20 7644 21 7491 22 7244 23 7194 24 7039 25 6894 26 6772	1       10460       10445'-10442'         2       10344       10320'-10217'         3       10194       10170'-10697'         4       10044       10020'-10017'         5       9889       9870'-9867'         6       9744       9720'-9717'         7       9594       9570'-9567'         8       9473       9420'-9417'         9       9294       9270'-9267'         10       9144       9120'-9117'         11       8944       8970'-8967'         12       8839       8820'-8817'         13       8649       8670'-8667'         14       8544       8520'-8517'         15       8394       8370'-8367'         16       8244       8220'-8217'         17       8094       8070'-8067'         18       7944       7920'-7917'         19       7794       7770'-7767'         20       7644       7620'-7617'         21       7491       7470'-7467'         22       7244       7320'-7317'         23       7194       7170'-7167'         24       7039       7020'-7017'	1       10460       10445'-10442'       10420'-10417'         2       10344       10320'-10217'       10270'-10267'         3       10194       10170'-10697'       10120'-10117'         4       10044       10020'-10017'       9970'-9967'         5       9889       9870'-9867'       9820'-9817'         6       9744       9720'-9717'       9670'-9667'         7       9594       9570'-9567'       9520'-9517'         8       9473       9420'-9417'       9370'-9367'         9       9294       9270'-9267'       9220'-9217'         10       9144       9120'-9117'       9070'-9067'         11       8944       8970'-8967'       8920'-8917'         12       8839       8820'-8817'       8770'-8767'         13       8649       8670'-8667'       8620'-8617'         14       8544       8520'-8517'       8470'-8467'         15       8394       8370'-8367'       8320'-8317'         16       8244       8220'-8217'       8170'-8167'         17       8094       8070'-8067'       8020'-8017'         18       7944       7920'-7917'       7870'-7867'         20	1         10460         10445'-10442'         10420'-10417'         10395'-10392'           2         10344         10320'-10217'         10270'-10267'         10220'-10217'           3         10194         10170'-10697'         10120'-10117'         10070'-10067'           4         10044         10020'-10017'         9970'-9967'         9920'-9917'           5         9889         9870'-9867'         9820'-9817'         9770'-9767'           6         9744         9720'-9717'         9670'-9667'         9620'-9617'           7         9594         9570'-9567'         9520'-9517'         9470'-9467'           8         9473         9420'-9417'         9370'-9367'         9320'-9317'           9         9294         9270'-9267'         9220'-9217'         9170'-9167'           10         9144         9120'-9117'         9070'-9067'         9020'-9017'           11         8944         8970'-8967'         8920'-8917'         8870'-8867'           12         8839         8820'-8817'         8770'-8767'         8720'-8717'           13         8649         8670'-8667'         8620'-8617'         8570'-8567'           14         8544         8520'-8517'         8470'-8467' </td <td>1         10460         10445'-10442'         10420'-10417'         10395'-10392'         10369'-10366'           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         10369'-10366'           3         10194         10170'-10697'         10120'-10117'         10070'-10067'         4           4         10044         10020'-10017'         9970'-9967'         9920'-9917'         9920'-9917'           5         9889         9870'-9867'         9820'-9817'         9770'-9767'         9620'-9617'           6         9744         9720'-9567'         9520'-9517'         9470'-9467'         9470'-9467'           8         9473         9420'-9417'         9370'-9367'         9320'-9317'         970'-9167'           9         9294         9270'-9267'         9220'-9217'         9170'-9167'         9170'-9167'           10         9144         9120'-9117'         9070'-9067'         9020'-9017'         9170'-9167'           11         8944         8970'-8967'         8920'-8917'         8870'-8867'         870'-8867'           12         8839         8820'-8817'         870'-876'         8720'-8717'         970'-8567'           13         8649         8670'-8667'</td> <td>1       10460       10445'-10442'       10420'-10417'       10395'-10392'       10369'-10366'       116         2       10344       10320'-10217'       10270'-10267'       10220'-10217'       150         3       10194       10170'-10697'       10120'-10117'       10070'-10067'       150         4       10044       10020'-10017'       9970'-9967'       9920'-9917'       155         5       9889       9870'-9867'       9820'-9817'       9770'-9767'       145         6       9744       9720'-9717'       9670'-9667'       9620'-9617'       150         7       9594       9570'-9567'       9520'-9517'       9470'-9467'       121         8       9473       9420'-9417'       9370'-9367'       9320'-9317'       179         9       9294       9270'-9267'       9220'-9217'       9170'-9167'       150         10       9144       9120'-9117'       9070'-9067'       9020'-9017'       200         11       8944       8970'-8867'       8920'-8917'       8870'-8867'       105         12       8339       8820'-8817'       8770'-8767'       8720'-8717'       190         13       8649       8670'-8667'       8620'-8617'</td> <td>1       10460       10445'-10442'       10420'-10417'       10395'-10392'       10369'-10366'       116       7380         2       10344       10320'-10217'       10270'-10267'       10220'-10217'       150       7245         3       10194       10170'-10697'       10120'-10117'       10070'-10067'       150       7057         4       10044       10020'-10017'       9970'-9967'       9920'-9917'       155       6368         5       9889       9870'-9867'       9820'-9817'       9770'-9767'       145       6586         6       9744       9720'-9717'       9670'-9667'       9620'-9617'       150       6450         7       9594       9570'-9567'       9520'-9517'       9470'-9467'       121       6635         8       9473       9420'-9417'       9370'-9367'       9320'-9317'       179       6708         9       9294       9270'-9267'       9220'-9217'       9170'-9167'       150       7446         10       9144       9120'-9117'       9070'-9067'       9020'-9017'       200       6950         11       8944       8970'-8967'       8920'-8917'       8870'-8867'       105       6994         12       8339<!--</td--><td>1         10460         10445'-10442'         10420'-10417'         10395'-10392'         10369'-10366'         116         7380         9000           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         150         7245         8281           3         10194         10170'-10697'         10120'-10117'         1070'-10667'         150         7057         8203           4         10044         10020'-10017'         9970'-9967'         9920'-9917'         155         6368         7764           5         9889         9870'-9867'         9820'-9817'         9770'-9767'         145         6586         7065           6         9744         9720'-9717'         9670'-9667'         9620'-9617'         150         6450         7704           7         9594         9570'-9567'         9520'-9517'         9470'-9467'         121         6635         7102           8         9473         9420'-9417'         9370'-9367'         9320'-9317'         179         6708         7383           9         9294         9270'-9267'         9220'-9217'         9170'-9167'         150         7446         8927           10         9144         9120'-9117'</td><td>1         10460         10445'-10442'         10420'-10417'         10395'-10392'         10369'-10366'         116         7380         9000         78.4           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         150         7245         8281         63.5           3         10194         101070'-10697'         10120'-10117'         1070'-10667'         150         7057         8203         66           4         10044         10020'-10011'         9970'-9967'         9920'-9917'         155         6368         7764         72           5         9889         9870'-9867'         9920'-9917'         150         6450         7704         76           6         9744         9720'-9717'         9670'-9667'         9620'-9617'         150         6450         7704         76           7         9594         9570'-9567'         9520'-9517'         9470'-9467'         121         6635         7102         79           8         9473         9420'-9417'         9370'-9367'         9220'-9317'         179         6708         338.3         78           9         9294         9210'-9117'         970'-9667'         9220'-9117'         170</td><td>1         10460         10445'-10442'         10420'-10417'         10392'-10392'         10369'-10366'         116         7380         9000         78.4         79           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         150         7245         8281         63.5         66           3         10194         10170'-10697'         10120'-10117'         1070'-10067'         150         7057         8203         66         73.4           4         10044         10020'-10017'         9970'-9967'         9920'-9917'         155         6368         7764         72         81           5         9889         9870'-9867'         9820'-9817'         9770'-9767'         145         6586         7065         76         81           6         9744         9720'-9567'         9520'-9517'         9470'-9467'         121         6635         7102         79         87           8         9473         9420'-9417'         9370'-9367'         9320'-9317'         179         6708         7383         78         82           9         2924         9270'-9267'         9220'-9217'         120'-1016'         150         7446         8927'         55<td>1         10660         10445'-10442'         10420'-10417'         10395'-10392'         10366'         116         7380         9000         78.4         79         7186           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         150         7245'         8281         63.5         66         3383           3         10194         10170'-10697'         10120'-10117'         10970'-10167'         155         6368         7764         72         81         6155           5         9889         9870'-9867'         9820'-9917'         155         6368         7764         72         81         6155           6         9744         9720'-9717'         9670'-9667'         9620'-9617'         150         6450         7704         76         81         5748           7         9594         9570'-9867'         9670'-9667'         9670'-9467'         121         6635         7102         79         87         5833           8         9473         9420'-9417'         9370'-9667'         9320'-9317'         179         6708         7383         78         82         6139           9         9294         9270'-9267'         9220'-917'</td></td></td>	1         10460         10445'-10442'         10420'-10417'         10395'-10392'         10369'-10366'           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         10369'-10366'           3         10194         10170'-10697'         10120'-10117'         10070'-10067'         4           4         10044         10020'-10017'         9970'-9967'         9920'-9917'         9920'-9917'           5         9889         9870'-9867'         9820'-9817'         9770'-9767'         9620'-9617'           6         9744         9720'-9567'         9520'-9517'         9470'-9467'         9470'-9467'           8         9473         9420'-9417'         9370'-9367'         9320'-9317'         970'-9167'           9         9294         9270'-9267'         9220'-9217'         9170'-9167'         9170'-9167'           10         9144         9120'-9117'         9070'-9067'         9020'-9017'         9170'-9167'           11         8944         8970'-8967'         8920'-8917'         8870'-8867'         870'-8867'           12         8839         8820'-8817'         870'-876'         8720'-8717'         970'-8567'           13         8649         8670'-8667'	1       10460       10445'-10442'       10420'-10417'       10395'-10392'       10369'-10366'       116         2       10344       10320'-10217'       10270'-10267'       10220'-10217'       150         3       10194       10170'-10697'       10120'-10117'       10070'-10067'       150         4       10044       10020'-10017'       9970'-9967'       9920'-9917'       155         5       9889       9870'-9867'       9820'-9817'       9770'-9767'       145         6       9744       9720'-9717'       9670'-9667'       9620'-9617'       150         7       9594       9570'-9567'       9520'-9517'       9470'-9467'       121         8       9473       9420'-9417'       9370'-9367'       9320'-9317'       179         9       9294       9270'-9267'       9220'-9217'       9170'-9167'       150         10       9144       9120'-9117'       9070'-9067'       9020'-9017'       200         11       8944       8970'-8867'       8920'-8917'       8870'-8867'       105         12       8339       8820'-8817'       8770'-8767'       8720'-8717'       190         13       8649       8670'-8667'       8620'-8617'	1       10460       10445'-10442'       10420'-10417'       10395'-10392'       10369'-10366'       116       7380         2       10344       10320'-10217'       10270'-10267'       10220'-10217'       150       7245         3       10194       10170'-10697'       10120'-10117'       10070'-10067'       150       7057         4       10044       10020'-10017'       9970'-9967'       9920'-9917'       155       6368         5       9889       9870'-9867'       9820'-9817'       9770'-9767'       145       6586         6       9744       9720'-9717'       9670'-9667'       9620'-9617'       150       6450         7       9594       9570'-9567'       9520'-9517'       9470'-9467'       121       6635         8       9473       9420'-9417'       9370'-9367'       9320'-9317'       179       6708         9       9294       9270'-9267'       9220'-9217'       9170'-9167'       150       7446         10       9144       9120'-9117'       9070'-9067'       9020'-9017'       200       6950         11       8944       8970'-8967'       8920'-8917'       8870'-8867'       105       6994         12       8339 </td <td>1         10460         10445'-10442'         10420'-10417'         10395'-10392'         10369'-10366'         116         7380         9000           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         150         7245         8281           3         10194         10170'-10697'         10120'-10117'         1070'-10667'         150         7057         8203           4         10044         10020'-10017'         9970'-9967'         9920'-9917'         155         6368         7764           5         9889         9870'-9867'         9820'-9817'         9770'-9767'         145         6586         7065           6         9744         9720'-9717'         9670'-9667'         9620'-9617'         150         6450         7704           7         9594         9570'-9567'         9520'-9517'         9470'-9467'         121         6635         7102           8         9473         9420'-9417'         9370'-9367'         9320'-9317'         179         6708         7383           9         9294         9270'-9267'         9220'-9217'         9170'-9167'         150         7446         8927           10         9144         9120'-9117'</td> <td>1         10460         10445'-10442'         10420'-10417'         10395'-10392'         10369'-10366'         116         7380         9000         78.4           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         150         7245         8281         63.5           3         10194         101070'-10697'         10120'-10117'         1070'-10667'         150         7057         8203         66           4         10044         10020'-10011'         9970'-9967'         9920'-9917'         155         6368         7764         72           5         9889         9870'-9867'         9920'-9917'         150         6450         7704         76           6         9744         9720'-9717'         9670'-9667'         9620'-9617'         150         6450         7704         76           7         9594         9570'-9567'         9520'-9517'         9470'-9467'         121         6635         7102         79           8         9473         9420'-9417'         9370'-9367'         9220'-9317'         179         6708         338.3         78           9         9294         9210'-9117'         970'-9667'         9220'-9117'         170</td> <td>1         10460         10445'-10442'         10420'-10417'         10392'-10392'         10369'-10366'         116         7380         9000         78.4         79           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         150         7245         8281         63.5         66           3         10194         10170'-10697'         10120'-10117'         1070'-10067'         150         7057         8203         66         73.4           4         10044         10020'-10017'         9970'-9967'         9920'-9917'         155         6368         7764         72         81           5         9889         9870'-9867'         9820'-9817'         9770'-9767'         145         6586         7065         76         81           6         9744         9720'-9567'         9520'-9517'         9470'-9467'         121         6635         7102         79         87           8         9473         9420'-9417'         9370'-9367'         9320'-9317'         179         6708         7383         78         82           9         2924         9270'-9267'         9220'-9217'         120'-1016'         150         7446         8927'         55<td>1         10660         10445'-10442'         10420'-10417'         10395'-10392'         10366'         116         7380         9000         78.4         79         7186           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         150         7245'         8281         63.5         66         3383           3         10194         10170'-10697'         10120'-10117'         10970'-10167'         155         6368         7764         72         81         6155           5         9889         9870'-9867'         9820'-9917'         155         6368         7764         72         81         6155           6         9744         9720'-9717'         9670'-9667'         9620'-9617'         150         6450         7704         76         81         5748           7         9594         9570'-9867'         9670'-9667'         9670'-9467'         121         6635         7102         79         87         5833           8         9473         9420'-9417'         9370'-9667'         9320'-9317'         179         6708         7383         78         82         6139           9         9294         9270'-9267'         9220'-917'</td></td>	1         10460         10445'-10442'         10420'-10417'         10395'-10392'         10369'-10366'         116         7380         9000           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         150         7245         8281           3         10194         10170'-10697'         10120'-10117'         1070'-10667'         150         7057         8203           4         10044         10020'-10017'         9970'-9967'         9920'-9917'         155         6368         7764           5         9889         9870'-9867'         9820'-9817'         9770'-9767'         145         6586         7065           6         9744         9720'-9717'         9670'-9667'         9620'-9617'         150         6450         7704           7         9594         9570'-9567'         9520'-9517'         9470'-9467'         121         6635         7102           8         9473         9420'-9417'         9370'-9367'         9320'-9317'         179         6708         7383           9         9294         9270'-9267'         9220'-9217'         9170'-9167'         150         7446         8927           10         9144         9120'-9117'	1         10460         10445'-10442'         10420'-10417'         10395'-10392'         10369'-10366'         116         7380         9000         78.4           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         150         7245         8281         63.5           3         10194         101070'-10697'         10120'-10117'         1070'-10667'         150         7057         8203         66           4         10044         10020'-10011'         9970'-9967'         9920'-9917'         155         6368         7764         72           5         9889         9870'-9867'         9920'-9917'         150         6450         7704         76           6         9744         9720'-9717'         9670'-9667'         9620'-9617'         150         6450         7704         76           7         9594         9570'-9567'         9520'-9517'         9470'-9467'         121         6635         7102         79           8         9473         9420'-9417'         9370'-9367'         9220'-9317'         179         6708         338.3         78           9         9294         9210'-9117'         970'-9667'         9220'-9117'         170	1         10460         10445'-10442'         10420'-10417'         10392'-10392'         10369'-10366'         116         7380         9000         78.4         79           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         150         7245         8281         63.5         66           3         10194         10170'-10697'         10120'-10117'         1070'-10067'         150         7057         8203         66         73.4           4         10044         10020'-10017'         9970'-9967'         9920'-9917'         155         6368         7764         72         81           5         9889         9870'-9867'         9820'-9817'         9770'-9767'         145         6586         7065         76         81           6         9744         9720'-9567'         9520'-9517'         9470'-9467'         121         6635         7102         79         87           8         9473         9420'-9417'         9370'-9367'         9320'-9317'         179         6708         7383         78         82           9         2924         9270'-9267'         9220'-9217'         120'-1016'         150         7446         8927'         55 <td>1         10660         10445'-10442'         10420'-10417'         10395'-10392'         10366'         116         7380         9000         78.4         79         7186           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         150         7245'         8281         63.5         66         3383           3         10194         10170'-10697'         10120'-10117'         10970'-10167'         155         6368         7764         72         81         6155           5         9889         9870'-9867'         9820'-9917'         155         6368         7764         72         81         6155           6         9744         9720'-9717'         9670'-9667'         9620'-9617'         150         6450         7704         76         81         5748           7         9594         9570'-9867'         9670'-9667'         9670'-9467'         121         6635         7102         79         87         5833           8         9473         9420'-9417'         9370'-9667'         9320'-9317'         179         6708         7383         78         82         6139           9         9294         9270'-9267'         9220'-917'</td>	1         10660         10445'-10442'         10420'-10417'         10395'-10392'         10366'         116         7380         9000         78.4         79         7186           2         10344         10320'-10217'         10270'-10267'         10220'-10217'         150         7245'         8281         63.5         66         3383           3         10194         10170'-10697'         10120'-10117'         10970'-10167'         155         6368         7764         72         81         6155           5         9889         9870'-9867'         9820'-9917'         155         6368         7764         72         81         6155           6         9744         9720'-9717'         9670'-9667'         9620'-9617'         150         6450         7704         76         81         5748           7         9594         9570'-9867'         9670'-9667'         9670'-9467'         121         6635         7102         79         87         5833           8         9473         9420'-9417'         9370'-9667'         9320'-9317'         179         6708         7383         78         82         6139           9         9294         9270'-9267'         9220'-917'

# State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	January 9, 2013
API#:	47-95-02035

arm name: Anne Spencer	<del></del> ·	Operator Well No.: 1114  Quadrangle: Paden City					
OCATION: Elevation: 703'	Quadrangle:						
District: Ellsworth	County: Tyles	<u> </u>		<del></del>			
		04.59 Se					
Longitude 9,104 Feet West of 80 D	0eg. <u>54</u> Min	<u>26.19</u> Se	c.				
Company:							
Address: Triad Hunter, LLC	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.			
P.O. Box 430, Reno, Ohio 45773							
Agent: Kimberly Arnold	20"	40'	40'				
Inspector: Joe Taylor	13 3/8"	443'	443'	444 cu. ft.			
Date Permit Issued: 6/21/2011	9 5/8"	2005'	2005'	833 cu. ft.			
Date Well Work Commenced: 1/11/12	5 1/2"	11420'	11336'	3050 cu. ft.			
Date Well Work Completed: 11/13/12	2 3/8"						
Verbal Plugging:							
Date Permission granted on:		<u></u>					
Rotary Cable Rig							
Total Vertical Depth (ft): 6029'							
Total Measured Depth (ft): 10566'							
Fresh Water Depth (ft.):							
Salt Water Depth (ft.):							
Is coal being mined in area (N/Y)? No		ļ	ļ				
Coal Depths (ft.):		<u> </u>					
Void(s) encountered (N/Y) Depth(s) None		<u> </u>		<u> </u>			
OPEN FLOW DATA (If more than two producing form Producing formation Marcellus Shale P Gas: Initial open flow 1200 MCF/d Oil: Initial open Final open flow 4136 MCF/d Final open Time of open flow between initial and final tests 3 Static rock Pressure 720 psig (surface pressure	ay zone depth (ft) on flow 35.18 Bt    flow 7.32 Bt    Hours	6030 bl/d bl/d	-	sheet)			
Second producing formationPay	zone depth (ft)		<b>t</b>				
Gas: Initial open flowMCF/d Oil: Initial open		bl/d					
Final open flow MCF/d Final open Time of open flow between initial and final tests		ol/d					
Static rock Pressure psig (surface pressure							
ertify under penalty of law that I have personally examine the attachments and that, based on my inquiry of those is at the information is true, accurate, and complete	ed and am familia						
1 Can V Lm		i	9 2013				
Signatu	re		Date				

Were core samples taken? YesNo	uring drilling? Yes X No	
Were Electrical, Mechanical or Geophysical	etails Including Plug Type and Depth(s):  Encountered: Top Depth / Bottom Depth  ale 2012'-2107' Weir 6014'-6068' Marcellus siltstone and shale 2107'-2132' shale and siltstone 6068'-TD Onondaga shale and siltstone 2132'-2136' Berea	
FRACTURING OR STIMULATING, PI DETAILED GEOLOGICAL RECORD	HYSICAL CHANGE, ETC. 2). THE WELL OF THE TOPS AND BOTTOMS OF A	LOG WHICH IS A SYSTEMATIC ALL FORMATIONS, INCLUDING
Perforated Intervals, Fracturing, or Stimulati	ng:	
Please see attached sheet.		
	·····	
	· · · · · · · · · · · · · · · · · · ·	
Plug Back Details Including Plug Type and	Depth(s):	
Formations Encountered: Surface:	Top Depth /	Bottom Depth
0'- 376' shale	2012'-2107' Weir	6014'-6068' Marcellus
376'- 426' siltstone and shale	2107'-2132' shale and siltstone	6068'-TD Onondaga
426'- 886' shale and siltstone	2132'-2136' Berea	
886'-923' sandstone	2136'-2609' shale and siltstone	
923'-960' shale, trace siltstone	2609'-2626' Fifth Sand	
960'-1092' 1st Salt Sand	2626'-3141' shale trace siltstone	
1092'-1146' shale	3141'-3189' 1st Warren	
1146'-1183' 2nd Salt Sand	3189'-4504' shale silstone	
1183'-1394' shale and siltstone	4504'-4540' Riley	
1394'-1428' 3rd Salt Sand	4540'-4650' Base of Huron Shale	
1428'-1552' shale and siltstone	4650'-5284' Angola	
1552'-1644' Greenbrier Lime	5384'-5716' Java	
1644'-1650' shale	5716'-5883' Middlesex	
1650'-1821' Big Injun	5883'-5990' Geneseo	
1821'-2012' shale, trace siltstone	5990'-6014' Tully Lime	

95-0203

## Spencer #1114 Perf Spacing for 19 Stages

Stage Length: 250'

Number of Clusters: 4
Dist. Between Perfs: 60'

Perf Length: 3'

Stages: 19

Start Depth: 11255'

90 @: 6049'

								FT	PSI	PSI	BPM	BPM	bbls	lbs
		Plug Depth	interval 1	Interval 2	Interval 3	Interval 4	Interval 5	Stage Length	<b>Avg Treating Pressure</b>	Max Pressure	Avg Rate	Max Rate	Fluid Volume	<b>Total Sand</b>
Stage	1	11255	11228'-11225'	11194'-11191'	11160'-11157'	11126'-11123'	11089'-11086'	200	7813	8769	69	81.5	3367	6200
Stage	2	11055	11026'-11023'	10963'-10960'	10900'-10897'	10837'-10834'		250	6572	7502	77	80.5	8959	440000
Stage	3	10805	10776'-10773'	10713'-10710'	10650'-10647'	10587'-10584'		250	6490	6920	75	80	8874	440000
Stage	4	10555	10526'-10523'	10463'-10460'	10400'-10397'	10337'-10334'		250	6660	7379	78	82	8660	440000
Stage	5	10305	10276'-10273'	10213'-10210'	10150'-10147'	10087'-10084'		250	7029	7999	76	81	7215	264000
Stage	6	10055	10026'-10023'	9963'-9960'	9900'-9897'	9837-'9834'		250	6682	7101	78.4	81	9200	440000
Stage	7	9805	9776'-9773'	9713'-9710'	9650'-9647'	9587'-9584'		255	6786	7585	79	82	8809	440000
Stage	8	9550	9526'-9523'	9463'-9460'	9400'-9367'	9337'-9334'		250	6380	6598	78	82	9331	440000
Stage	9	9300	9276'-9273'	9213'-9310'	9150'-9147'	9087'-9084'		243	6752	7349	75	80	8399	440000
Stage	10	9057	9026'-9023'	8963'-8960'	8900'-8897'	8837'-8834'		252	6663	7363	70	77	8462	440000
Stage	11	8805	8776'-8773'	8713'-8710'	8650'-8647'	8587'-8584'		250	6620	7259	74	81	8459	440000
Stage	12	8555	8526'-8523'	8463'-8460'	8400'-8397'	8337'-8334'		250	6650	7700	79	82	8754	440000
Stage	13	8305	8276'-8273'	8213'-8210'	8150'-8147'	8087'-8084'		252	6237	7426	65	81	9988	440000
Stage	14	8053	8026'-8023'	7963'-7960'	7900'-7897'	7837'-7834'		248	6296	7039	77	81	8698	440000
Stage	15	7805	7776'-7773'	7713'-7710'	7650'-7647'	7587'-7584'		250	6461	7469	73	80	8547	440000
Stage	16	7555	7526'-7523'	7463'-7460'	7400'-7397'	7337'-7334'		250	6448	6925	69	77	9704	440000
Stage	17	7305	7276'-7273'	7213'-7210'	7150'-7147'	7087'-7084'		250	6313	6709	70	81	8559	440000
Stage	18	7055	7026'-7023'	6963'-6960'	6900'-6897'	6837'-6834'		250	6193	7245	77	80	8521	440000
Stage	19	6805	6776'-6773'	7713'-7710'	6650'-6647'	6587'-6584'		6805	5942	6568	78	80	10160	647300

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE: January 9, 2013 API #: 47-95-02036

Farm name: Anne Spencer	On arrate w Wel	1 87 1115					
LOCATION: Elevation: 703'	Operator Well No.: 1115  Quadrangle: Paden City						
District: Ellsworth	County: Tyler						
Latitude: 14,711 Feet South of 39 Deg.		.04.59 Sec		<del></del>			
Longitude 9,119 Feet West of 80 Deg		. <u>26.37</u> Sec					
_							
Company:	Casing &	Used in	Left in well	Cement fill			
Address: Triad Hunter, LLC	Tubing &	drilling	Leit in well	up Cu. Ft.			
P.O. Box 430, Reno, Ohio 45773							
Agent: Kimberly Arnold	20"	40'	40'				
Inspector: Joe Taylor	13 3/8"	443'	443'	420 cu. ft.			
Date Permit Issued: 6/21/2011	9 5/8"	2010'	2010'	833 cu. ft.			
Date Well Work Commenced: 1/31/12	5 1/2"	10965'	10881'	4646.5 cu. ft.			
Date Well Work Completed: 04/03/12	2 3/8"						
Verbal Plugging:							
Date Permission granted on:							
Rotary Cable Rig							
Total Vertical Depth (ft): 5966'							
Total Measured Depth (ft): 10930'							
Fresh Water Depth (ft.):		Ī					
Salt Water Depth (ft.):							
Is coal being mined in area (N/Y)? No							
Coal Depths (ft.):							
Void(s) encountered (N/Y) Depth(s) None							
OPEN FLOW DATA (If more than two producing formati	zone depth (ft) 6 flow 0 B w 103.68 Bb Hours	5030 bl/d bl/d	ata on separate s	heet)			
Second producing formation Pay zo							
Gas: Initial open flowMCF/d Oil: Initial open flow		bl/d					
Final open flow MCF/d Final open flow  Time of open flow between initial and final tests				FED 45 183			
Static rock Pressurepsig (surface pressure) a							
I certify under penalty of law that I have personally examined	and am familia	with the inform	nation submitted	d on this document and			
all the attachments and that, based on my inquiry of those indi							
that the information is true, accurate, and complete.							

Signature

95.02036

Were core samples taken? YesNo_X Were cuttings caught during drilling? Yes_X No					
Were Electrical, Mechanical or Geophysical	THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, ING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC OGEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.  Servals, Fracturing, or Stimulating:  Tetrials Including Plug Type and Depth(s):  Top Depth / Bottom Depth  Sincountered: Top Depth / Bottom Depth  Siltstone and shale 2107'-2132' shale and siltstone 6068'-TD Onondaga shale and siltstone 2132'-2136' Berea				
FRACTURING OR STIMULATING, PL DETAILED GEOLOGICAL RECORD	HYSICAL CHANGE, ETC. 2). THE WELL OF THE TOPS AND BOTTOMS OF A	LOG WHICH IS A SYSTEMATIC ALL FORMATIONS, INCLUDING			
Perforated Intervals, Fracturing, or Stimulation	ing:				
Please see attached sheet.					
Plug Back Details Including Plug Type and	Depth(s):				
Formations Encountered: Surface:	Top Depth /	Bottom Depth			
0'- 376' shale	2012'-2107' Weir	6014'-6068' Marcellus			
376'- 426' siltstone and shale	2107'-2132' shale and siltstone	6068'-TD Onondaga			
426'- 886' shale and siltstone	2132'-2136' Berea				
886'-923' sandstone	2136'-2609' shale and siltstone				
923'-960' shale, trace siltstone	2609'-2626' Fifth Sand				
960'-1092' 1st Salt Sand	2626'-3141' shale trace siltstone				
1092'-1146' shale	3141'-3189' 1st Warren				
1146'-1183' 2nd Salt Sand	3189'-4504' shale silstone				
1183'-1394' shale and siltstone	4504'-4540' Riley				
1394'-1428' 3rd Salt Sand	4540'-4650' Base of Huron Shale				
1428'-1552' shale and siltstone	4650'-5284' Angola				
1552'-1644' Greenbrier Lime	5384'-5716' Java				
1644'-1650' shale	5716'-5883' Middlesex				
1650'-1821' Big Injun	5883'-5990' Geneseo				
1821'-2012' shale, trace siltstone	5990'-6014' Tully Lime				

## Spencer #1115 Perf Spacing for 16 Stages

Stage Length: 245'

Number of Clusters: 4 to 5 Dist. Between Perfs: 59

Perf Length: 3'

Stages: 16

Start Depth: 10930'

90 @: 6998'

								FT	PSI	PSI	BPM	BPM	bbls	lbs
		Plug Depth	Interval 1	Interval 2	Interval 3	Interval 4	Interval 5	Stage Length	Avg Treating Pressure	Max Pressure	Avg Rate	Max Rate	Fluid Volume	<b>Total Sand</b>
Stage	1	10930	10810'-10807'	10768'-10765'	10720'-10717'	10672'-10669'	10624'-10621'	339	7302	8354	82.5	83.2	8390	427200
Stage	2	10591	10563'-10560'	10501'-10498'	10439'-10436'	10377'-10374'		245	7491	9033	82	83.1	7585	363800
Stage	3	10346	10318'-10315'	10256'-10253'	10194'-10191'	10132'-10129'		245	6979	8531	82	83.4	8235	421700
Stage	4	10101	10073'-10070'	10011'-10008'	9949'-9946'	9887'-9884'		245	8306	9101	56.6	80.8	6001	12000
Stage	5	9856	9828'-9825'	9766'-9763'	9704'-9701'	9642'-9639'		245	6691	7760	82.4	84.1	8522	427000
Stage	6	9611	9583'-9580'	9521'-9518'	9459'-9456'	9397'-9394'		245	7150	7858	84.2	84.4	8769	424400
Stage	7	9366	9338'-9335'	9276'-9273'	9214'-9211'	9152'-9149'		245	6681	8367	83.1	84.1	8278	427200
Stage	8	9121	9039'-9090'	9031'-9028'	8969'-8966'	8907'-8904'		245	6750	8257	82.1	82.4	8428	427200
Stage	9	8876	8848'-8845'	8786'-8783'	8724'-8721'	8662'-8659'		245	7180	7778	82.2	83.1	8362	427200
Stage	10	8631	8603'-8600'	8541'-8538'	8479'-8476'	8417'-8414'		256	8480	9111	61.8	82.3	5050	5000
Stage	11	8375	8358'-8355'	8296'-8293'	8234'-8231'	8172'-8169'		227	6891	8647	82.7	84.2	10322	427000
Stage	12	8148	8113'-8110'	8047'-8044'	7989'-7986'	7917'-7920'		252	8650	N/A	39.5	N/A	5027	N/A
Stage	13	7896	7868'-7865'	7806'-7803'	7744'-7741'	7682'-7679'		245	7406	8218	77.3	82	9702	427200
	14	7651	7623'-7620'	7561'-7558'	7499'-7496'	7437'-7434'		245	6772	8272	76.2	76.2	8190	427200
Stage	15	7406	7378'-7375'	7316'-7313'	7254'-7251'	7191'-7189'		245	7298	8188	78.6	81.5	9305	352600
Stage		7161	7133'-7130'	7071'-7068'	7009'-7006'	6747'-6944'		245	7001	8542	78.7	79.1	10140	521600

DATE:	5/5/12	
API:	47-097-03764	

## State of West Virginia Division of Environmental Protection Section of Oil and Gas

### Well Operator's Report of Well Work

Farm Nan	n <u>e:</u>	Potter B#3		Oper	ator We	ell No	EF	<u> 20503</u>	
LOCATIO	N:	Elevation:	1849'		Quadra	angle:	Buckh	annon	7.5
	District:	Mea	ade						
	Latitude:	10385'	Feet S. of	38	Deg.	55 Min	. <u>00</u>	Se	C.
		3895'					i. <u>30</u>		
					9 -			_	
Company	: Energy Pro	duction Inc	<u> </u>		_				
Address:	PO Box 90	)7		Casii Tub	- 11	Used in Drilling	· 11		Cement fill up Cu. Ft.
		WV 26378		9 5		30'	3(		
	June Len,	*** 20010	-		<del>"</del>	888'		8'	to surface
Agent:		.lo	hn Haskins	· · · · · · · · ·			40		190 sacs
Inspector:	•		Bill Hatfield		<del>'</del>				.00 00.00
	nit Issued:	. <u>.</u>	09/27/10						
	Work Com	menced:							
	Work Com		04/06/11						
Verbal Plu		oictea.	0-7/00/11						
	nission Grar	ated on:		ļ					
	Cable								
Total Dep		Titig	4123'						
	iter Depth (fl	· ·	280'						
FIESH VV	itei Debtii (ii	·)·	200						
Salt Wate	er Depth (ft):			l	L				
	ing mined in I Depths (ft):		//N)?	N	_				
OPEN FL	OW DATA								
		formations	4th	1		Pay zone	depth (ft)	21	120' '- 2126'
	Ū		5th	1	_	•	•	2	160' - 2168'
			Baya	ard	_				204' - 2228'
			Bradi	ord	_	•		3	552' - 3561'
			Bens	son	<del>_</del>				893' - 3897'
					_				
	Fina	al open flow al open flow	750	Mcf/d.	Fin	al open flo	ow <u>N/A</u>	BŁ	ol/d (d ol/d (d
	•	en flow bet ck Pressure				oress.) afte	Hours	Но	onie Sylva
stimulatin	n back of thing, physical of all formation	change, etc.	. 2) The we	ll log wh	iich is a	systemat	intervals, t ic detailed	fractúr geolog	ing or
	Date:	5/5/12	<del></del>		_				

97.03764

## HYDRAULIC FRACTURING DETAILS

STAGE	FORMATION	PERFORATIONS	SAND	
OTAGE		# of shots	20/40	
1st Stage	Benson	14-Jan	35,000	
2nd Stage	Bradford	11	20,000	
3rd Stage	Bayard	10	25,000	
4th Stage	Fifth Sand	16	15,000	
5th Stage	4th	14	25,000	
*				

DRILLERS LOG			
FORMATION	FROM	TO	
Fill	0	10	
sand	10	258	
sand & shale	258	341	
coal	341	355	
sand & shale	355	1,425	
Big Lime	1,425	1,604	
big injun	1,604	1,614	
sand & shale	1,614	2,120	
4th	2,120	2,126	
sand & shale	2,126	2,160	
5th	2,160	2,168	
sand & shale	2,168	2,204	
Bayard	2,204	2,228	
sand & shale	2,228	3,552	
Bradford	3,552	3,561	
sand & shale	3,561	3,893	
Benson	3,893	3,897	
sand & shale	3,897	T.D.	
		<del> </del>	
		<del> </del>	

## ELECTRIC LOG

FORMATION	Depth
Big Lime	1390'
Big Injun	1590'
Fourth Sand	2120'
Fifth Sand	2160'
Bayard	2204'
Bradford	3552'
Benson	3893'